

SEQUENCE LISTING

<110> DOUGLAS, SUSAN
GALLANT, JEFFREY
PATRZYKAT, ALEKSANDER

<120> A GENOMIC APPROACH TO IDENTIFICATION OF NOVEL BROAD-SPECTRUM
ANTIMICROBIAL PEPTIDES FROM BONY FISH

<130> 6899-6 LAB

<140> 10/525,126

<141> 2005-02-18

<150> PCT/CA03/001323

<151> 2003-08-22

<150> 60/404,922

<151> 2002-08-22

<160> 362

<170> PatentIn Ver. 3.3

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peptide

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peptide

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<210> 43
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<210> 45
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<210> 47
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<210> 48
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<210> 50
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<210> 53
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<400> 54
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<210> 61
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pleurocidin-like peptide

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Ile Gly Gly Ala Leu Asp His Leu
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<210> 63
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pleurocidin-like peptide

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Trp Leu Arg Arg Ile Gly Lys Gly Val Lys Ile Ile Gly Gly Ala Ala
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<210> 64

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pleurocidin-like peptide

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<400> 64

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<210> 65

<211> 25

<212> PRT

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pleurocidin-like peptide

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<400> 65

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20 25

<210> 66

<211> 24

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pleurocidin-like peptide

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<400> 66

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<210> 67

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1 5 10 15

Gly His Ala Ala Val Asn His Tyr Leu
20 25

<210> 68

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Gly Lys Ala Ala Leu Thr Ala Tyr Leu
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Asn Ala Met Asn Ala
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<210> 71
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pleurocidin-like peptide

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<210> 72
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pleurocidin-like peptide

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20 25

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pleurocidin-like peptide

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Gly Gly Leu Ala Val Asp His Tyr Leu
20 25

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pleurocidin-like peptide

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20 25

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pleurocidin-like peptide

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Leu His Leu His Leu
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<210> 77
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pleurocidin-like peptide

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Ala Ile Lys

<210> 78
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<220>
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pleurocidin-like peptide

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pleurocidin-like peptide

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Phe Ala

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pleurocidin-like peptide

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Ala Leu His Met Asn Ser Glu Arg Arg Ser
20 25

<210> 82
<211> 901
<212> DNA
<213> Pleuronectes americanus

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<212> DNA

<213> *Pleuronectes americanus*

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<210> 84

<211> 968

<212> DNA

<213> *Pleuronectes americanus*

<400> 84

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<212> DNA

<213> *Pleuronectes americanus*

<400> 85

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<213> *Pleuronectes americanus*

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<212> DNA

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<210> 88

<211> 1300

<212> DNA

<213> *Pleuronectes americanus*

<400> 88

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<210> 89

<211> 3500

<212> DNA

<213> *Pleuronectes americanus*

<400> 89

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```

<210> 90

<211> 1003

<212> DNA

<213> Hippoglossoides platessoides

<400> 90

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<210> 91

<211> 1007

<212> DNA

<213> Hippoglossoides platessoides

<400> 91

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<210> 92

<211> 999

<212> DNA

<213> Hippoglossoides platessoides

<400> 92

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aaaatagaat aactgaattg ccatgaaaaa ataattacac atactgtctg attttacaag 600
tcaagattga acactactta aaagtatgta taaaacatca tctgtatgta taattgttta 660
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accttggcaa gcagccggag ctgcacaagc gcgcaattga tgacgacccc agtattattg 960
tttttgactg aagaagtcgc cttgaaggag ctttcagaa 999
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<210> 93

<211> 179

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 93

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gcgatccagg cacacaatga cggcgaggag caggatctcg acaagcgcgc agtcgatga 179
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<210> 94

<211> 224

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 94

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```

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catttgggtg ctgacgagca gcaggagctc gacgagcgt cagaggagga cgagcccaat 180
gtrattgttt ttgaatgaag aagtcgcatt gaaggagcct tcag 224

<210> 95
<211> 862
<212> DNA
<213> Glyptocephalus cynoglossus

<400> 95
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<210> 96
<211> 849
<212> DNA
<213> Glyptocephalus cynoglossus

<400> 96
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<210> 97
<211> 678
<212> DNA
<213> Hippoglossus hippoglossus

<400> 97
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<210> 98

<211> 690

<212> DNA

<213> Hippoglossus hippoglossus

<400> 98

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<210> 99

<211> 847

<212> DNA

<213> Pleuronectes ferruginea

<400> 99

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<210> 100

<211> 191

<212> DNA

<213> Pleuronectes ferruginea

<400> 100

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<210> 101

<211> 1100

<212> DNA

<213> *Pleuronectes americanus*

<400> 101

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<210> 102

<211> 1300

<212> DNA

<213> *Pleuronectes americanus*

<400> 102

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<210> 103
<211> 824
<212> DNA
<213> Hippoglossus hippoglossus

<400> 103
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gctttttcca ttgcaaatat tttaatattg catagctgga aaatcacgaa ataagtagtc 180
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catgcaccga cctgctgcgg caacaattga aatcaaatgt gtctcagaat ttaaagtaca 360
tttttctagg tgatttaatc tttccattaa cttgatttgt ttttataaat atagaataac 420
tggtatcttta tgccaaaata ataaaacacn cattctgatt ttaccagtca agattgaaca 480
ctacttaaaa gtaatatata acatcatctg tatgtataat tgtttaactg ttaacaaaag 540
tccaaataat tgtgttatgg aaatgtattt attgtcatft aatatccttt gcttgaattc 600
atcaccatgt gttttttgtt tgtttttaca caggtgaaaa gaaggccttg cagtaaggac 660
ttctaccatc attactttgt aatttttata gtattatcat cagtactgtt attgacaact 720
tctcttgctt cgtgactctt ctccatcagg atgaactcag agcgtcgcag ttacgacgag 780
cggcagcagc agcagcagga gctcgacaag cgcgacgtcg atga 824

<210> 104
<211> 193
<212> DNA
<213> Hippoglossus hippoglossus

<400> 104
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gaggggtttg gaaattggat cgtgcgccc ttcggaggtg aaaagaaggc cttgcagatg 120
aactcagagc gtcgcagtta cgcgcagcgg cagcagcagc agcaggagct cgacaagcgc 180
gcagtcgatg aaa 193

<210> 105
<211> 281
<212> DNA
<213> Hippoglossus hippoglossus

<400> 105
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gagagtcctt ttggaaagtt cctcaagaaa gttgtccatg ctggcacgtc aattggcgag 120
acagccttgc atgtgcgccg agagcatcac gggcttcatt cgcctcacgg gtgtcacggg 180
cgtcacgggg gtcacaggcg tcacgggggt cacaggcgtc acgggcgtcg cggttacgac 240
gagcagcagc aggaggagct cgacaagcgc gcattcgatg a 281

<210> 106
<211> 194
<212> DNA
<213> Hippoglossus hippoglossus

<400> 106
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agaggggttt ggaaattgga tggggcccca tatcagcggg agaaagaagg ccttgcacat 120
gaactcagag cgtcgcagtt acgacgagcg gcagcagcag cagcaggagc tcgacaagcg 180
cgcatcgatg gaaa 194

<210> 107
<211> 669

<212> DNA
<213> Hippoglossus hippoglossus

<400> 107
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gagtggtttt tgggattgct ttttcacggg gtccaccatg gtaggggtcac ggaagtaatt 120
cgatttttac atggcaataa ttttaagata acacaccata tgagtagtcg atatatcttg 180
ccaattagaa tcaactttgat ttcaataata atcaaaataa caatctctag gogatttaatt 240
atttgcatca attggatttg ttttlaaaaa tatagaataa ctggatcttt atggtaaaat 300
aattaaacat acattctgat tttaccagtc aagattgaac actacttaga agtatgtata 360
aaacatcatc tgtatgtata attgtttaac tgttaacgaa tagtccaaat aattgtgtta 420
tggaatgta ttaattgtca tttaatatca tttgcttgaa tttatcacca tgtgtttttg 480
tttgttttta cacagttgga aagttgatcc atgggttaagg acttctacca tcattactgt 540
gtatttttaa tagtattatc atcagtacta ttattgacaa cttctcttgt ctgctgact 600
ctctccatca gactcatcca tggcgggtac gacgagcagc aggagctcga caagcgcgca 660
gtcgatgaa 669

<210> 108
<211> 1006
<212> DNA
<213> Glyptocephalus cynoglossus

<400> 108
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gcatttggga aatgtgtca gcttgttact gttaaatgca aatgtraaca atattctttt 120
tctgttgrtt ttgtagaatg aagttcgctg ccgccttcc catgatgttc atggctcgtcc 180
tcatggctga acccgagag gctcgttggg gaacgttctt caaacatatt ttcaaaggta 240
gagtcacaga attaatttgc tttttacatc gcaaatattt tcatataaca tagctggaaa 300
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aaggtrcatc catgggttaag gacttctacc atcattactg tgtattttta atagtattat 840
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aggcacacaa tgacggcgag cagcaggatc tcgacaagcg ctcaagtygat gatgagccca 960
gtgttattgt ttttgaatga agaagtcgac ttgaaggagc cttcag 1006

<210> 109
<211> 1007
<212> DNA
<213> Glyptocephalus cynoglossus

<400> 109
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tctgttgrtt ttgtagaatg aagttcgctg ccgccttcc catgatgttc atggctcgtcc 180
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tctcagaaaa atttaaaagta catttttctt tccattagtc ggatttgttt taaaaatac 540
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taactaatag tcccaataat tgtgttatgg aaatgtattc attgtcattt aatatcattt 720

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cactggcacg gtgacgtcga gcagcaggct ctcgacaagc gctcagtggg ggaccagccc 960
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<210> 110

<211> 1007

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 110
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agaataactg gatctttatg ctaaaaataa aaatcataca ttctgatttt accagtcaag 600
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gcttgaattt atcaccatgt gtttttgtct gtttttacac agctctactg aggatcaatc 780
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cactggcacg gtgacgtcga gcagcaggct ctcgacaagc gctcagtggg ggaccagccc 960
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<210> 111

<211> 201

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 111
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aacggttttg cctcttgcga agagcagcaa gagctcgaca agcgtctcaga ggatgacgag 180
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<210> 112

<211> 862

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 112
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cattgcaaat actttaatat aacatagttg gaaaatcaca aaaataagta gtcgatatat 180
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agtcgccttg aagagccttc ag 862
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<210> 113

<211> 782

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 113

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tctgttggtt ttgcagaatg aagctcgctg ctgccttcct ggtgtgtgtc atggctcgcc 180
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aaacatacat tctgatttta ccagttaaag ttgaacgcta cttaaaaagta tgtataaaaac 420
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<210> 114

<211> 185

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 114

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gagggttatt ggcgcttcgg caaccaccgt ggtgaaagg ttatccagag gcatttcgct 120
gacgtcgagc agcaggagct cgacaagcgc tcagtggtat acgagcccag ttctattgct 180
tttga 185
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<210> 115

<211> 837

<212> DNA

<213> Glyptocephalus cynoglossus

<400> 115

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aatcactttg acttcaataa taatcaaaa cataatcaaa aagcccattg attagcatgt 240
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<210> 116
<211> 748
<212> DNA
<213> Glyptocephalus cynoglossus

<400> 116
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gactgtattt ttggattgat tgcgactgcg gtccacaatg gtaagtcaag gaattaattc 120
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tctccatcag actactcggc tttcatcatg ggctcccggt gttctggcac ggtgacgtcg 660
agcagcagga gctcgacaag cgtcagtggt atgaggagcc cagtctattt gcttttgact 720
gaagaagtcg ccttgaagga gctttcag 748

<210> 117
<211> 748
<212> DNA
<213> Glyptocephalus cynoglossus

<400> 117
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gactgtattt ttggattgat tgcgactgcg gtccacaatg gtaagtcaag gaattaattc 120
gatttttact tggcaaatat tttagtataa cataccttat gagtagtoga tatatttgac 180
caagcagaat ctttttgatt tcaataataa tcaaaataac aatctctagg caatttaata 240
tttgatttaa ttggatttgt ttttaaaaat atagaataac tggatcttaa tgctaaaata 300
attaaacata cattctgata ttaccagtca agattgaacg ctacttaaaa gtatgtataa 360
aacatcatct gtatgtataa ttgtttaact tgcgactaat agtcctaata attgtgttat 420
ggaaatgtat tcattgtcat ataatatcat ttgcttgaat ttatcaccat gtgtttttgt 480
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tctccatcag actactcggc tttcatcatg ggctcccggt gttctggcac ggtgacgtcg 660
tgcagcagga gctcgacaag cgtcagtggt atgaggagcc cagtgtattt gtttttgaat 720
gaagaagtcg ccttgaagga gctttcag 748

<210> 118
<211> 748
<212> DNA
<213> Glyptocephalus cynoglossus

<400> 118
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gattttttacg tggcaaatat tttagtataa cataccttat gagtagtoga tatatttgac 180
caagtagaat ctttttggtt tcaataataa tcaaaataac aatctctagg caatttaata 240
tttgatttaa ttggatttgt ttttaaaaat atagaataac tggatcttaa tgctaaaata 300
attaaacata cattctgata ttaccagtca agattgaacg ctacttaaaa gtatgtataa 360
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taatttttaag agcattatca tcagtaactgt tattgataac ttctcttgtc tcgctgactc 600
tctccatcag actactcggc tttcatcatg ggctcccggt gttctggcac ggtgacgtcg 660
agcagcagga gctcgacaag cgtcagtggt atgaggagcc cagtgtattt gtttttgaat 720

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tgattattac atgccaaata tgtraatgai acataccata agagagagag 240
acaagtagaa tcactttgat ttcaatagta attaaaaata caatcaaaaa ggcctttgat 240
tagcatgttc cttcaatgaa atggacattg aggtttatatt tgattctcac ctgcatcgac 300
ctgctgcggc aactattgaa atcaaatgtg tcccagaaga aactaaatta acattttcta 360
ggccatctaa tctttgcatg aattggattt gctttcaaaa atatagaata actggatatt 420
tatgctaaaa taataaaaaac acacattctg attttaccag tcaagattga acactactta 480
aaagtacgta taaaacatca tctgtatgta taattgtttg acttttaaca aatagtcaaa 540
atgattgtta tggaaatgca ttaattgtca tttaatatca tttacttgaa tttatcacca 600
tgtgtttgtt tgttttttag caggtggaag tttctcaat gcgcaaggac ttctaccatc 660
attactgrgt aattttaata gtattatcat cagtaactct attgacaacg tctcttgtct 720
cgctgactct ctctatcaga ttaaaccacg ggtatcgagg ttacgacgag cagcaggagc 780
tcgacaagcg cgcagtcgat ga 802

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<210> 120
 <211> 661
 <212> DNA
 <213> Eopsetta jordani

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<400> 120
atgaagttca ctgccacctt cctgggtgtg tccctggctg tccctcatggc tgaacctgga 60
gaggggtttct ttggagccct tctcaaaagt agagtcacgg aattaatttg attgttacat 120
ggcaataaat ttgrataac atatcatacg agcagtcgat gtatttgacc aagaagaatc 180
attttgattt caataataat caaaataaaca atctcttgga gattatatat ttgcaataat 240
tggatttttat aaaatataga acaactggat cttaatgcta aaataattaa acatacatte 300
tgattttacc agtcaaaatt aaccactact ttaaagtatg tataaaacat catctgtatg 360
tttaattgtt taacttttaa caaatagtc aaataartgt gtaatggaaa tgtattcatt 420
gtcatataat atagtttgct tgactttatc accggtgtgt tttgtttgtt ttttcacagg 480
tgcccaggcg ctccatgggt aaggaactct accatcatga ctgtgtaagt ttaataatat 540
tatcatcagt actgttatta acgacttctc ttgtctcgct gactctctcc atcagaatca 600
tcacacaargc tcgtcacggt tacgacgagc agcaggaact caacaagcgc gcagtcgatg 660
a 661

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<210> 121
 <211> 1011
 <212> DNA
 <213> Eopsetta jordani

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<400> 121
gcccaactttg tattcgcaag gtaagatcaa tatttttcaa attcatttag acgagaccaa 60
ccgtttgcga aatgtgtca gcttgttatt gtataataac aaagttaacg atctttattt 120
ttctgttttt ttgtagaatg aagttcacatg ccaccttctt gatgttggtc atcttcgtcc 180
tcattggttga acctggagag tgtggttga aagattgggt tcgttaaggct aagaaaggta 240
gaatcacgga attaattagc tttttacatt gcaaatagat tttttataac agctggaaat 300
cacaaaaata aatagtcgat atatttgacc aattagaatc actttaattt caataataat 360
ctaaataaca acctaaaagg cctttgattt gcatgttctt tcaatgaaaa ggacattgag 420
gtttatttttg attctcacat gcaccgaact gtgcggcaac aattgaattc agatttgtcc 480
cagaagaatt caaagtacat ttttccaggc gattaaatct ttccattact cggattttaa 540
aataaataaa tagaataact gaagcgcgat gataaaataa ttacacattc attctgattt 600

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748

gaagaagtcg ccttgaagga gccttcag

<210> 119

<211> 802

<212> DNA

<213> Eopsetta jordani

<400> 119

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atgaagttca ctgccacctt cctcgtgttg ttcattggtca tcgtcatgtt tgaacctgga 60
gagtgttttt ttggaatgcg ttttcacggg gtccaccatg gtagggtcac aazagtgtt 120
tgattattac atgccaaata tgtnaatga acataccata tgagcagtcg tattatttgg 180
acaagtagaa tcaactttgat ttcaaatga attaaaaata caatcaaaaa ggcccttggat 240
tagcatgttc cttcaatgaa atgacattg aggtttattt tgattctcac ctgcacgac 300
ctgctgcggc aactattgaa atcaaatttg tcccagaaga aactaaatta acattttcta 360
ggccatctaa tctttgcatg aattggattt gctttcaaaa atatagaata actggatatt 420
tatgctaaaa taataaaaac acacattctg attttaccag tcaagattga acactactta 480
aaagtacgta taaaacatca tctgtatgta taattgtttg acttttaaca aatagtcaaa 540
atgattgtta tggaaatgca ttaattgtca tttaatatca tttacttgaa tttatcacca 600
tgtgtttgtt tgttttttag caggtggaag ttttctcaat ggcgaaggac ttctaccatc 660
attactgtgt aattttaata gtattatcat cagtaactct attgacaacg tctcttgtct 720
cgctgactct ctctatcaga ttaaaccacg ggtatcgcgg ttacgacgag cagcaggagc 780
tcgacaagcg cgcagtcgat ga 802
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<210> 120

<211> 661

<212> DNA

<213> Eopsetta jordani

<400> 120

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atgaagttca ctgccacctt cctgggtgttg tctttgggtcg tcttcattggc tgaacctgga 60
gaggggtttt ttggagccct tctcaaagyt agagtcacgg aattaatttg attgttacat 120
ggcaataaat tttgtataac atatcatatg agcagtcgat gratttgacc aagaagaatc 180
attttgattt caataataat caaaataaa ca atctcttggg gattatatat ttgcaataat 240
tggattttat aaaatataga acaactggat cttaattgcta aaataattaa acatacattc 300
tgattttacc agtcaaaatt aaccactact ttaaagtatg tataaaacat catctgtatg 360
tttaattgtt taacttttaa caaatagtcc aaataattgt gtaattggaaa tgtattcatt 420
gtcatataat atagtttgcg tgactttacc accgtgtgtt tttgtttgtt ttttcacagg 480
tgcccaggcg ctccatgggt aaggacttct accatcatga ctgtgtaagt ttaataatat 540
tatcatcagt actgttatta acgacttctc ttgtctcgct gactctctcc atcagaatca 600
tcccaaatgc tcgtcacggg tacgacgagc agcaggaact caacaagcgc gcagtcgatg 660
a
```

<210> 121

<211> 1011

<212> DNA

<213> Eopsetta jordani

<400> 121

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gcccaatttg tattcgcaag gtaagatcaa tatttttcaa attcatttag acgagaccaa 60
cgttttgca aatgtgtcga gctgtgtatt gtataataac aaagttaacg atctttattt 120
ttctgttttt ttgtagaatg aagttcacatg ccaccttcct gatgttgttc atcttcgtcc 180
tcattggttg acctgagag tgtggttga aagatttggt tcgtaaggct aagaaaggta 240
gaatcacgga attaatttag tttttacatt gcaaatagat tttttataac agctggaaat 300
cacaaaaata aatagtcgat atatttgacc aattagaatc actttaattt caataataat 360
ctaaataaca acctaaaagg cctttgattc gcatgttcc tcaatgaaa ggacattgag 420
gtttattttg attctcacat gcacccgaact gtgcggcaac aattgaattc agatttgtcc 480
cagaagaatt caaagtacat ttttccaggc gattaaatct ttccattact cggatttcaa 540
aataaataaa tagaataact gaagggcat gataaaataa ttacacattc attctgattt 600
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tacaagtcaa gattgaacac tattaataaag tgtgtataaa acatcatctg tatgtataat 660
tgtttaactg ttaatagtct taaraattgt gttatggaaa tgtattaatt tacatttaatt 720
atcatttgct tgagtttacc atcatgtgtt tttgtttgtt ttacacagt tggcaagact 780
gttggcggct tggcccttaa gtaagaactt ctaccatcat tactgtataa ttttgatagt 840
attatcacca gtactgttat taactacttc tcttgtctcg ctgactctct ccatcogact 900
catccgcagt cattaccttg gcgagcagca ggagcttgcc aagcgcgcag tcgatgacga 960
ccccagtgtt attgtctttg actgaagaag tcgccttgaa ggagccttca g 1011

<210> 122

<211> 826

<212> DNA

<213> *Pleuronectes vetulus*

<400> 122

atgaagttca ctgccacctt cctcatgatt ttaatcttcg tctcatggt cgaacctgga 60
gagtgtggtt ttaggaaatg gtttaaaaag gctgctcac gtaagtcac ggaatttaatt 120
tgctttttgc ttacaaaata tttttttata gcagctggaa aatcacaaaa ataaatagtc 180
gatgtatttg gccaataga atcactttga tttcaataa taatcraat agcaacctaa 240
aaggcctttg attagcatgt tcttcaatg aaatggatgt tgaggtttat ttgattctc 300
acatgcaccg acctgctgcg gcacaatcg aattcaaat tgtcccaaag gaattcaaag 360
taaaactttc tagatgattt aatctttcra taactcggct ttgtttttaa aaatatataa 420
taactcaatc actatgataa aataataaca catacattct gatttataca agacaagatt 480
gaaaacttct taaaagtatg tataaaacat catctgtttg tataattgtt tatcatttca 540
caaaaagtcc aactaattgt gtrattggaat tgrataaatt gtcatttaat ataatttttt 600
tgagtttata aatatgtgtt ttgtttgtt ttacacagtc ggcaagggaag ttggcaagggt 660
ggcccttaag taaggacttc taccattatt actgtataat ttgatagta ttatcacccg 720
tactgttatt gacaacttct ctttctctgc tgactctctc catctgactc atctgcagtc 780
cttgccttga caagcagcag cagctcgaca agcgcgcagtc cgatga 826

<210> 123

<211> 1017

<212> DNA

<213> *Pleuronectes vetulus*

<400> 123

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gcatttggga aatgtgctaa ggttgttact gtataatgca aaattaatga tctttatttt 120
tctgtttttt ttgcagaat gaagttcact gccaccttcc tcatgatttt aatcttcgtc 180
ctcatggtcg aaactggaga gtgtggtttg aagaaatggt ttaaaaaggc tgttcacggt 240
agagtcacgg aattaatttg ctttttgctt tacaatatatt tttttatagc agctggaaaa 300
tcacaaaaat aatagtcga tgtattttgc caattagaat cactttgatt tcaataataa 360
tctaaatagc aacctaaaag gcctttgatt agcatgttcc ttcaatgaaa tggatgttga 420
ggtttatttt gattctcaca tgcaccgacc tgctgcggca acaattgaat tccaatttgt 480
cccaaaggaa tcaaaagtaa acttttctag gcgatttaat ctttcataaa ctcggtttg 540
tttttaaaaa tatataataa ctcaatcctt atgataaaat aataacacat acattctgat 600
ttatacaaga caagattgaa aactctctga aagtatgtat caaacatcat ctgtttgtat 660
aattgtttta cagttcacaa aaagtccaac taattgtgtt atggaattgt ataaattgtc 720
atttaatatata atttttttga gtttatcact atgtgttttt gtttgtttta cacagttggc 780
aagaaagttg gcaaggtggc ccttaagtaa ggacttctac cattattact gtgtaatttt 840
gatagtatta tcaccagtac tgttattgac aacttctctt ttcctgctga ctctctccat 900
ccgactcact tgcagtgctt accttggcga gcagcagcag ctgcacaagc gtgcagtcga 960
tgaagagccc agtgttattg ctttgcactg aagaagtcgc cttgaaggag ccttcag 1017

<210> 124

<211> 814

<212> DNA

<213> *Platichthys stellatus*

<400> 124
atgaagttca ctgccacctt cctcatgatg ttcattctcg tctcatggt tgaacctgga 60
gagtggtgtt ggaggaaatg gattaaaaag gctactcac gtaaagtcac ggaattaatt 120
cgttttttgc ttggcaataa ttttttttat aacagctgga aagtcacaaa aataaatagt 180
caatataatt ggccaattag aatcactttg agttcaataa taatctaaat aacaaccaa 240
aaggcccttc cttaaatgaa atgtacgttg aagtttattt tgaatctcac atgcaccgac 300
ctgctgcggc aacaattgaa ttcaaatttc tcccagagga attcaaagta aatttttcta 360
ggcgatttaa tctttccatt actctgatit gttttaaata tatagaatga ctcaattgct 420
atgataaaat aataagccat acattctgat ttttacaaga caagattgaa aacttcttaa 480
aagtacgtat aaaacatcat ctgtatttat aattgtttta catttaacaa attgtcctac 540
taattgtgtt atggaaatgt ataaattgic atttaatatc atttgcttga gtttatcatt 600
atgtgttttt gttgtttttt acacagtttg caagcatatt ggcaaggcgg cccttgagta 660
agaacttcta ccatcattac tgtataatit tgatagtatt atcaccagta ctgttattga 720
caacttctct tgcctgatg actctgttca tccaactcat ctgcagtgtt tacattggcg 780
ggaagcaaga actcgacaag cgcgcagtcg atga 814

<210> 125

<211> 670

<212> DNA

<213> Reinhardtius hippoglossoides

<400> 125
atgaagttca ctgccacctt cctggtgttg ttcattggtc tctcatggc tgaacctgga 60
gaggggtttt tgggattgct ttttcacggg atccaccatg gtagggtcac ggaattaatt 120
agatgtttac atggcaataa ttttaagata acacaccata tgagtgtcg atatatattga 180
ccaattagaa tcaactttaat ttcaataata atcacaataa caatctctag gccatttaatt 240
ctttccatta atcggttttg tttttttaa tatagaataa ctggatcttt atgcraaaat 300
aatgaaacat acattctgat ttaccagtc aagattgaac gttacttaaa agtatgttta 360
aaacatcatc tgtatgtata attgttttagc tgtaaacaaa tagtccaaat aartgtgtta 420
tggaatgtga ttaattgtca tataatataa ttgtcttgaa ttatcacca tgtgtttttg 480
ttgttttttt aacacagctg gaaagtgtat ccatgggtta ggacttctac catcattact 540
gtgtattttt aatagtatta tcatcagtac tgtrattaac aacttctctt ctatcgctga 600
ctctctccat cagactcatc catcatggtt acgacgagca gcaggagctc gacaagcgcg 660
cagtcgatga 670

<210> 126

<211> 813

<212> DNA

<213> Hippoglossus stenolepis

<400> 126
atgaagttca ctgccacctt cctggtgttg ttcattggtc tctcatggc tgaacctgga 60
gaggggtttt gaaattggat ggggccccat atcagcggta gagtcacgga attaatgttc 120
tttttccatt gcaaatattt taatatttga tagctggaaa atcacgaaat aagtagtcga 180
tatatttggc caaatagaat aactttgttt tcaataataa tcaaaattac aatcaaaaag 240
gcctttgatt agcatgttcc ttcaatanaa tggacattga agtttatttt gatgtcaca 300
tgcaccgacc tgcctgcggc acaattgnaa tcaaatttgt ctcaagaattt aaagtacatt 360
tttctagggt attcaatctt tccattcttc tgatttattt tataaatata gaataactgg 420
atctttctgc taaaataata aaacacacat tctgatttta ccagtcaga ttgaacacta 480
cttaaaagta tgtataaaac atcatctgta tgtataattg tttaactgtt aacaatagtc 540
caaataattg tgttaaggaa atgtatttat tgtcatttaa tatcatttgc ttgaatttat 600
caccatgagt tttttgtttg tttttacaca ggtagaaaaga aggccttgca gtaaggactt 660
ctaccatcat tactttgtaa tttttatagt attatcatca gtactgttat tgacaacttc 720
tcttgtctcg ctgactctct ccatcagjat gaactcagag cgtcgcagtt acgacgagta 780
gcagcagaag ctcgacaagc gcgcagtcga tga 813

<210> 127

<211> 668

<212> DNA

<213> Hippoglossus stenolepis

<400> 127

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atgaagttca ctgccacett cctggtgttg ttcattggtcg tctcatggc tgaacctgga 60
gagtgttttt tgggatttgc ttttcacggg gtccaccatg gtaggggtcac ggaagtaatt 120
cgattttttac atggcaataa ttttaagata acacaccata tgagtagtcg atatatattga 180
tatattagaa tcaactttgat ttcaataata atcaaaataa caatctctag gcgatttaatt 240
atttgcatta attggatttg ttttaaaaaa tatagaataa ctggatcttt atggtaaaat 300
aattaaacat acattctgat tttaccagtc aagattgaac actacttaga agtatgtata 360
aaacatcatc tgtatgtata attgtttaac tgttaactaa tagtccaaat aattgtgtta 420
tggaatgta ttaattgtca ttttaataaa tttgcttgaa tttatcacca tgtgtttttg 480
tttgttttta cacagttgga aatttgatcc atgggtaagg acttctacca tcattactgt 540
gtatttttaa tagtattatc atcagtagtg ttattgacaa cttctctgtg ctgctgact 600
ctctccatca gactcatcca tcacggttac gacgagcagc aggagctcga caagcgcgca 660
gtcgtatga 668
```

<210> 128

<211> 1015

<212> DNA

<213> Pleuronichthys coenosus

<400> 128

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gcccactttg tattecgcaag gtaatatcga tttttttcaa actcatttag acgagaccag 60
gcatttggga aacgtgctaa ggtgtgttact gtataatgca aaattaatga tctttatttt 120
tctgtttttt tttgcagaat gaagtccact gccaccttcc tcatgatttt aatcttcgtc 180
ctcatgggtcg aacctggaga gtgtggtatt aggaaatggg ttaaaaaggc tgctcacggg 240
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tcacaaaaat aaatagtcga tgtatttggc caattagaat cactttgatt tcaataataa 360
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ggtttatttt gattctcaca tgcaccgacc tgctgctggc acaattgaat tcaaatgtgt 480
cccaaaggaa ttcaaagtaa acttttctag gcgatttaat ctttccataa ctggtctttg 540
tttttaaaaa tatataataa ctcaatcgtc atgataaaat aataacacat acattctgat 600
ttatacaaga caagattgaa aacttcttga aagtattgat caaacatcat ctgtttatat 660
aattgtttta catttcacaa aaagtccaac taattgtgtt atggaattgt ataaattgtc 720
atttaataaa atttttttga gtttatccat atgtgttttt gtttgtttta cacagttggc 780
aagaaaagttg gcaaggtggc ccttaagtaa ggacttctac cattattact gtataatttt 840
gatagtatta tcaccagtac tgttattgac aacttctctt ttctgtctga ctctctccat 900
ccgactcatc tgcagtgtct accttggcga gcagcagcag ctgcacaagc gtgcagtoga 960
tgaagagccc agtgtttattg cttttgactg aaggagctgc cttgaaggag ccttc 1015
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<210> 129

<211> 1019

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence of pleurocidin-like gene

<400> 129

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gcccactttg tattecgcaag gtaatatcga tttttttcaa actcatttag acgagaccac 60
gcatttggga aacgtgctaa ggtgtgttact gtataatgca aaattaatga tctttatttt 120
tctgtttttt tttgcagaat gaagtccact gccaccttcc tcatgatttt aatcttcgtc 180
ctcatgggtcg aacctggaga gtgtggtatt aggaaatggg ttaaaaaggc tgctcacggg 240
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atcacaaaaa tasatagtcg atgtatttgg ccaattagaa tcaacttgat ttcaataata 360
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aggtttattt tgattctcac atgcaccgac ctgctgctggc aacaattgaa ttcaaatgtg 480
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tcccaaagga attcaaagta aactttttctt ggcgatttaa tctttccata actcgggctt 540
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atttatacaa gacaagattg aaaaacttctt gaaagtatgt atcaaacatc atctgtttgt 660
ataattgttt aacatttcac aaaaagtcca actagtgtgt ttatggaatt gtataaattg 720
tcatttaata taattttttt gagtttatca atatgtgttt ttgtttgttt tacacagttg 780
gcaagaaggt tggcaagggt gcccttaagt aaggacttct accattatta ctgtataatt 840
ttgatagtat tatcaaccagt actgttattg acaacttctc ttttcctgct gactctctcc 900
atccgactca tctgcagtgcc ttacctggcc gagcagcagc agctcgacaa gcgtgcagtc 960
gatgaagagc ccagtggtat tgcttttgac tgaagaagtc gccttgaagg agccttcag 1019
```

<210> 130

<211> 832

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence of pleurocidin-like gene

<400> 130

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aatgaagttc actgccacct tcttcataja atgggttcac ttcgtcctca atggggttgaa 60
acctgaagaa gtgtggttgg aaagaaagtg gtttaaaaag gctactcacg gtaaaagtcac 120
ggaattaatt agcatttttc ttngcaaaata ttttttttat acagctcgaa aattcacaaa 180
aataaatagt cgatatattt ggccaattag aatcactttg atttcaataa taatctaaat 240
aacaacctaa aaggcccttg attagcatgt tccctcaatg aaatggacgt tgagggttct 300
attgattctc acatgcaccg acctgctgcg tcaacaattg aattcaaatg tgagaggaat 360
tcagcgtaaa tttttctagg cgatttaarc tttccattac tcggatttgt ttttaaatat 420
atagaataac tcaattgcta tgataaaaata ataacacata cattcagatt tttacaagac 480
aagattgaaa acttcttaaa ggtacgtata aaacatcatc tgtatttata atgttttaac 540
atttaacaaa taactctact aattgtgtta tggaaatgta taaattgtaa tttaatataa 600
tttgctttag tttatcatta tttgtttttg tttgttttta cacagttggc aagcatgttg 660
gcaaggcgcc ccttgagtaa gaacttctac catcattact gtataatttt gatagtgtta 720
tcaccagtac tgttattgac aacttctctt gtctctgctga ctctctccat ccgactcacc 780
cgcagtgctt acctcggcga gaagcaagaa ctcgacaagc gcgcagtcga tg 832
```

<210> 131

<211> 670

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence of pleurocidin-like gene

<400> 131

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atgaagttca ctgccacctt cctgggtgtg ttcattggtc tctcatggc tgaacctgga 60
gagggttttt tcggattgct ttttcacggg atccaccatg gtaggggtcac ggaatttaatt 120
agatgtttac atggcaaata ttttaagata acacaccata tgagtgtctg atatatttga 180
ccaattagaa tcactttaat ttcaetanta atcacaataa caatctctag gccatttaatt 240
ctttccatta atcggatttg tttttttaaa tatagaataa ctggatcttt atgctaaaaat 300
aatgaaacat acattctgat tttaccajtc aagattgaac gttacttaaa agtatgttta 360
aaacatcatc tgtatgtata attgtttagc tgtaaaacaaa tagtccaaaat aattgtgtta 420
tggaaatgta ttaattgtca tataatataa tttgcttgaa tttatcacca tgtgtttttg 480
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ggtatttttt aatagtatta tcatcagcac tgttattaac aacttctctt ctatcgctga 600
ctctctccat cagactcacc catcatggtt acgacgagca gcaggagctc gacaagcgcg 660
cagtcgatga 670
```


<210> 132
<211> 813
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence of pleurocidin-like gene

<400> 132
atgaagttca ctgccacctt cctgggtgttg ttcattggtcg tccatcatggc tgaacctgga 60
gaggggtttgg gaaattggat ggggccccat atcagcggta gagtcacgga attaatattgc 120
ttttccatt gcaaatattt caatattgca tagctggaaa atcagaaaat aagtagtcga 180
tatatttggc caaatagaat aactttgatt tcaataataa tcaaaattac aatcaaaaag 240
gcctttgatt agcatgttcc ttcaataaaa tggacattga agtttatttt gatgctcaca 300
tgcaccgacc tgctgcggca acaattgaaa tcaaaattgt ctgagaattt aaagtacatt 360
tttctagggtg atttaattctt tccattcatt tgatttattt tataaatata gaataactgg 420
atctttctgc taaaataata aaacacacat tctgatttta ccagtcaaga ttgaacacta 480
ctraaaagta tgtataaaac atcatctgca tgtataattg ttttaactgtt aacaatagtc 540
caataaattg tgtaaggaa atgtattaat tgtcatttaa tatcatttgc ttgaatttat 600
caccatgagt ttttggtttg tttttacaaa ggtagaaaga aggccttgca gtaaggactt 660
ctaccatcat tactttgtaa tttttatagt attatcatca gtactgttat tgacaacttc 720
tcttgtctcg ctgactctct ccattcaggat gaactcagag cgtcgcagtt acgacgagta 780
gcagcageag ctgcacaagc gcgcagtcga tga 813

<210> 133
<211> 668
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence of pleurocidin-like gene

<400> 133
atgaagttca ctgccacctt cctgggtgttg ttcattggtcg tccatcatggc tgaacctgga 60
gagtggtttt tgggattgct ttttcacagg gtccaccatg gttagggtcac ggaagtaatt 120
cgatttttac atggcaaaata ttttaagata acacaccata tgagtagtcg atatatattga 180
tatatttagaa tcaactttgat ttcaataata atcaaaaata caatctctag gcgatttaatt 240
atttgcatta attggatttg ttttaaaaaa tatagaataa ctggatcttt atggtaaaat 300
aattaaacat acattctgat tttaccagtc aagattgaac actacttaga agtatgtata 360
aaacatcatc tgtatgtata attgttttac tgttaactaa tagtccaaat aatttgttta 420
tggaatgta ttaattgtca ttttaataca tttgcttgaa tttatcacca tgtgtttttg 480
tttgttttta cacagttgga aatttgatcc atgggtaagg acttctacca tcattactgt 540
gtatttttaa tagtattatc atcagtaatg ttattgacaa cttctcttgt ctgctgact 600
ctctccatca gactcatcca tcacggttac gacgagcagc aggagctcga caagcgcgca 660
gtcgatga 668

<210> 134
<211> 1015
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence of pleurocidin-like gene

<400> 134
gcccaatttg tattcgcaag gtaatatoga tatttttcaa actcatttag acgagaccag 60

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gcatttggga aacgtgctaa ggttggtact gtataatgca aaattaatga tctttatttt 120
tctgtttttt ttgcgagaat gaagttcact gccaccttcc tcatgatttt aatcttcgtc 180
ctcatggtcg aacctggaga gtgtggtatt aggaaatggt ttaaaaaggc tgctcacggc 240
aaagtcacgg aattaatttg ctttttgctt tacaaatatt tttttacagc agctggaaaa 300
tcacaaaaat aatatagtcga tgtatttggc caattagaat cactttgatt tcaataataa 360
tctaaatagc aacctaaaaag gccttrgatt agcatgttcc ttcaatgaaa tgggtgttga 420
ggtttacttt gattctcaca tgcaccgacc tgcgtcgcca acaattgaat tcaaatttgt 480
cccaaaggaa ttcaaagtaa acttttctag gcgatttaat ctttccataa ctcggttttg 540
tttttaaaaa tatataataa ctcaatcgct atgataaaaat aataacacat acattctgat 600
ttatacaaga caagattgaa aacttcttga aagtatgtat caaacatcat ctgtttatat 660
aattgtttta catttcacaa aaagtccaac raattgtgtt atggaattgt ataaattgtc 720
atttaataata atttttttga gtttatcaat atgtgttttt gtttgtttta cacagtgggc 780
aagaaagttg gcaaggtggc ccttaagtaa ggacttctac cattattact grataatttt 840
gatagtatta tcaccagtac tgttattgac aacttctctt ttctgtctga ctctctccat 900
ccgactcacc tgcagtgtct accttggcga gcagcagcag ctgcacaagg gtgcagtcga 960
tgaagagccc agtgttattg cttttgacag aaggagtcgc cttgaaggag ccttc 1015
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<210> 135

<211> 557

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 135

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cgcccttaag atgaagacat tcagtgttgc agttgcagtg gtggtcgtcc tcgcatgtat 60
gttcatcctt gaaagcaccc ctgttccttt ctccgaggtg cgaacggagg aggttgaaag 120
cattgacagt ccagttgggg aacatcaaca gccggggcggc acgtccatga atctgccggt 180
acgttcaatt tagtgaatga attaagtaat taaccttagc aaattaacat ctaagtggtt 240
gcgtttcacc ctgtgaattg aattagccca ctagcgctag ttgttaacca ttgtattgtg 300
agccggtaga gagggcttca gggcgagtag tgtgaatact tgtgaagtgg agacttggac 360
aaaaataact accatgtgtt tgttcccacc tttttcattt tcttttcttg gctgagatac 420
agatgcattt caggttcaag cgtcagaacc acctctccct gtgccgttgg tgcgtcaact 480
gctgtcacia caagggctgt ggcttctgct gcaaattctg aggacctgcc agcaaagggc 540
gaattcgttt aaaacac 557
```

<210> 136

<211> 282

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 136

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agatgaagac attcagtggt gcagttgtag tgggtggtcgt cctcgcatgt atgttcatcc 60
ttgaaagcac cgtgttccct ttctccgagg tgcgaacgga ggaggttgaa agcatcgaca 120
gtccagttgg ggaacatcaa cagccgggycg gcacgtccat gaatctgccg atgcatttca 180
ggttcaagcg tcagagccac ctctccctgt gccgttgggt ctgcaactgc tgtcacaaca 240
agggtctgtg cttctgtctg aaattcttag gacctgccag ca 282
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<210> 137

<211> 623

<212> DNA

<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 137
acgaggtccc tcatccgctg acaccaaaag aacaatcaat caactttgga ctggtcttag 60
tgcattgaaa attgtgcgtt ggagagcgic gctttttggg aacattgaag agttctgac 120
ttccctcataa actgtcactt caatttcac tgatttcaac aggactttta aataggctat 180
aaacttecta aaaaaaacga gaatgaagtc ctttagtggt gcagtggtac tgcgtcattgc 240
atgtatgttc atccttgaaa gcacogctgt tctttctcc gaggtgcgaa cggaggaggt 300
tggaagcttt gacagtcag ttggggaaac tcaacagccg ggcggcgagt ccagtcact 360
gcccggagcct ttcaggttca agcgtcagat ccacctctcc ctgtgcggtt tgtgctgcaa 420
ctgctgtcac aacattggct gtggtctcgt ctgcaaatc taaggacctg cccgcaacat 480
tttctagttt gtacatgttt gcaatgtttt cttctgaga tgttgtttt gtgactatga 540
taatgattta taaaatcact tcttattgtg acactttaa aaaaataaac acattctttg 600
aatacaaaaa aaaaaaaaaa aaa 623

<210> 138
<211> 312
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 138
cgaacggagg aggttgaaaag cattgacagt ccagttgggg aacatcaaca gccggggcggc 60
acgtccatga atctgccgat gcatttcagg ttcaaacgtc agagccacct ctccctgtgc 120
cgttgggtgt gcaactgtgt tcacaacaag ggctgtggct tctgctgcaa attctgagga 180
cctgccagca ctaagccat tttattaact tatcgccctt aatttgcccc tattcttcta 240
tgtttctttt ggactctgtg gagaagatgc aatctcattg acgtctttat cactgcacaa 300
cctcaatctt gt 312

<210> 139
<211> 277
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 139
aagatgaaga cattcagtgt tgcagtgjta cccgtcattg catgtatgtt catccttgaa 60
agcaccgctg ttctttctc cgaggtg>ga acggaggagg ttggaagctt tgacagtcca 120
gttggggaac atcaacagcc gggcggc>cg tccatgaatc tgccgatgca ttccaggttc 180
aagcgtcaga gccacctctc cctgtgc>gt tgggtgcttca actgctgtca caacaaaggc 240
tgtggcttct gctgcaaatt ctgagga>ct gccagca 277

<210> 140
<211> 276
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide

sequence for hepcidin-like gene

<400> 140
taagatgaag caattcagtg tggcagtggt actcgtcagt gcatgtatgt tcatcgtgga 60
aagcaccgct gttcccttct ccgagggtgcg aacggaggag gttggaagct tggacagtc 120
agttggggaa catcaacagc cgggcggcga gtccatgcat ctgccggagc ctttcagggt 180
caagcgtcag atccacctct ccctgtgcgg tttgtgctgc aactgctgtc acaacattgg 240
ctgtggttc tgctgcaaat tctgagactg ccagca 276

<210> 141
<211> 647
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 141
acgaggcaca cgctgaccag ggggtcacca caacttctga agagaccag gttcctagag 60
agccactaga gaatcaccoc ggagcccgaa gaacacagga cgctgcggtg ctcgctcggtg 120
gccggacacc catgagacag aagacctaca agcctctcag cttcagaagg atttccctgac 180
tcagcatcta aaacctccct caaatgaag gcattcagca ttgcagttgc agtgacactc 240
gtgctcgctt ttgtttgcat tcagtgcagc tctgcgctcc cattccaagg ggtgcaggag 300
ctggaggagg ccggggggcaa tgacactcca gttgcggaac atcaagtgtat gtcaatggaa 360
tccctgatgg agaatccac caagcagaa cgcacatca gccacatctc cctgtgcgcg 420
tggtgtgca actgtgcaa ggcacaacag ggtgtgtgct tctgtgcaa gttctgagga 480
ttcccgcaac acaacctcac aatgtattaa tttattacac tttttgtcga gaaatgtcct 540
ttttctgac ctttttcta attttgtata atctttttaa taaaacgggg tacgattcat 600
ggaaaaaacc ctttgaataa aataaaaaaa aaaaaaaaaa aaaaaaac 647

<210> 142
<211> 521
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 142
aagatgaaga cattcagtg tgcagttgca gtgacactcg tgctcgctt tgtttgcatt 60
caggacagct ctgccgtccc attccagggg gtaagaacgc aactttaact cgcttcattt 120
gcttattagc cataaatgtt ttgtcaggtat gctgagacac ggctcctaaa tgtgtataat 180
tcattaacag gtgcaggagc tggaggaggc agggggcaat gacactccag ttgcggcaca 240
tcaaatgatg tcaatggaat cgtggatggt atgttcaatc tgttcaatcg actggatgaa 300
ttaagccaat tactgtgagc gcgttaacat ttaagtggct gtgttccagc ccggtgctgt 360
aggggaataaa acccctcgtt catgtgtctt gtccgtccac aggaagagtc cgtcaggcag 420
aagcgtcaca tcagccacat ctccatgagc cgctgggtgt gcaactgctg caaggccaag 480
ggctgtggcc cctgtgcaa attctgaagg cctgcccgag a 521

<210> 143
<211> 543
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide

sequence for hepcidin-like gene

<400> 143
aagatgaaga cattcagtggt tgcagtcaca gtggccgctcg tgcctcgtctt tatttgtatc 60
cagcagagct ctggcacott tccctgaggtg agctcctgac ttcagatcgt ttcattttgtc 120
ttgttatcca tgaatctctc atcaacagac tgagacttga ttccttcttt atcaggtaca 180
agagctggag gaggcagtgga gcaatgacaa tgcagctgct gaacatcagg agacatcagt 240
ggactcatgg atggtagggt cagttcactg aatggatcaa accaattcac atcagacctt 300
tcagatggaa gtgaatgtgt tttagtctca aaggtgccct gaagctcagt ttacacaagc 360
agtgaataca aacacagaaa gttatgatga tgcctgatga cttctcctca tgcctcatgt 420
ctctcacaca gatgccatac aacagacaga agcgtgccct caagtgtgaa ttctgctgag 480
gctgctgcag agctgggtgt tgtggactgt gctgcaagtt ctgaggattc ctgctccaac 540
aac 543

<210> 144

<211> 581

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 144
acgagctgac aggagctgac aggagtcacc agcagagtca aagaactaaa caacttaact 60
cagtcacaaact ctcaaagatg aagacattca gtgtttgcagt cacagtggcc gtcgtcctcg 120
tccttatttg tatccagcag agctctgcct cctttcctga ggcacaaagag ctggaggagg 180
cagtgcagcaa tgacaatgca gctgctgagc atcaggagac accagtggac tgcgtgatga 240
tgccatacaa cagacagaag cgtagcttta agtgtaagtt ctgctgcggc tgcctgcagag 300
ctggtgtctg tggactgtgc tgcaagttct gaggattcct gctccaacaa ccatcaaata 360
ttcattttgt ttgctttttg tcttaaagtt cattgaacta taaacatatt tctgggtgag 420
catgtgatag tttaattggtg ttactcattg gttcatggta tagtcaagtg ttcagagatg 480
tgattgtatc acccacatat tttctctgtt aggtgtattt tcaataaatg ccaatgatcc 540
tttgaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 581

<210> 145

<211> 579

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 145
acgagcggca cgagggtgaa tgacaggagc tgacaggagt caccagcaga gtcaaagaac 60
taaacaactt aactcagtc aactctcnaa gatgaagaca ttcagtgttg cagtcacagt 120
ggccgtcgtg ctgctcttta ttgttatcca gcagagctct gctcctttc ctgaggcaca 180
agagctggag gaggcagtg gcaatgacaa tgcagctgct gaacatcagg agacaccagt 240
tgactcgtgg atgatgccaa acaacagaca gaagcgtggc tttaagtgtg agttctgctg 300
cggctgctgc agagctgggt tctgtggact gtgctgcaag ttctgaggat tccctgctcca 360
acaaccatca aatattcatt tcttttgact tttgttttaa agttcattga actatataca 420
tatttctggt agagcatgtg atagtttaat ggtgctactc cttgggtcat ggtgtagtta 480
agtgttcaga gatgtgattg tatcaccacc atatttctct gtttaagggtt attttcaata 540
aatgttaagt ctcttttgaa aaaaaaaaaa aaaaaaaaaa 579

<210> 146

<211> 477

<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 146
acgagactga caggagctga caggagtcac cagcagagtc aaagaactaa acaacttaac 60
tcagtcaaac tctcaaagat gaagacatic agtggtgcag tcacagtggc cgtcgtgctc 120
gtctttattt gtatccagca gagctctgac acctttcctg agatgccata caacagacag 180
aagcgtggct ttaagtgtaa gttctgctgc ggctgctgcg gagctgggtg ctgtggaatg 240
tgctgcaagt tctgaggatt cctgctccaa caaccatcaa atattcattt gttttgcctt 300
ttgtcttaaa gttcattgaa ctataaacat atttctgggt gagcatgtga tagtttaatg 360
gtgttactca ttggtcatg gtatagtcua gtgttcagag atgtgattgt atcaccaca 420
tattttctct gttaggtgta ttttcaatua atgccaatga tcctttgaaa aaaaaaa 477

<210> 147
<211> 483
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 147
aagatgaaga cattcagtggt tgcagtcaca gtggcgcgtc tgctcgtctt tatttgatc 60
cagcagagct ctgcccctt tctgaggta agcacctgac ttcagatcgt ttcatttgc 120
tggtatccat gaatctctca tcatcactat gagacttgat tcttcttta tcaggcaca 180
gagctggagg aggcagtgag caatgacaat gcagctgctg agcatcagga gacaccagt 240
gactccagga gtgaatgtgt tttagtccaa aaagtggcct gaagctcagt ttacacaagc 300
agagaaaaca aacagagtaa gttatgatga tgctgatgaa ggtctcctca tgcctcatgt 360
ctctcacaca gattccatac aacagacaga agcgtagctt taagtgttaag ttctgctgcg 420
gctgctgcag agctgggtgtc tgtggactgt gctgcaagtt ctgaggattc ctgctccaac 480
aac 483

<210> 148
<211> 542
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 148
agatgaagac atgcagtggt gcagtcacag tggccgctgt gctcgtcttt atttgatcc 60
agcagagctc tgccctcttt cctgaggtaa gcacctgact tcagatcgtt tcatttgc 120
gttatccatg aatctctcat catcatactg agacttgatt ccttctttat caggtaaca 180
agctggagga ggcagtgagc aatgacaatg cagctgctga acatcaggag acaccagttg 240
actcgtggat ggtaggttca gttoactgaa tggatcaatc catttcacat cagatctttc 300
agatggaagt gaatgtgttt tagtcacaaa agtgcccttg aagctcagtt tacacaagca 360
ggagaaaaca acagagtaag ttatgatgat gctgatgaag gtctcctcat gtctcatgtc 420
tctcacacag atgccaaaaca acagacajaa gcgtggcttt aagtgttaagt tctgctgcg 480
ctgctgcaga gctgggtgtc gtggactgtg ctgcaagttc tgaggattcc tgcctcggac 540
aa 542

<210> 149
<211> 536
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 149
aagatgaaga caatcagtggt tgcagtcaca gtggccgctcg tctcgtctt tatttgatc 60
cagcagagct ctgccctctt tcttgaggta agcacctgac ttcagatcgt ttaatttgc 120
tggtatccat gaatctctca tcaacatact gagacttgat tcttcttta tcaggcaca 180
gagctggagg aggcagtgag caatgacat gcagctgctg agcatcagga gacaccagt 240
gactcaggga tggtaggttc agttcactga atggatcaat ccatttcaca tcagatctt 300
cagattgaag tgaatgtgtt ttagtcacaa aagtgcctg aagctcagtt tacacaagca 360
gagaaaacaa acagagtaag ttatgatgat gctgatgaag gtctcctcat gtctcatgtc 420
tctcacacag attccataca acagacagaa gcgtagcttt aagtgttaagt tctgctgcgg 480
ctgctgcaga gctggtgtct gtggactgtg ctgcaaattc tgaggacctg ccagca 536

<210> 150
<211> 536
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 150
aagatgaaga cattcagtggt tgcagtcaca gtggccgctcg tctcgtctt tatttgatc 60
cagcagagct ctgccctctt tcttgaggta agcacctgac ttcagatcgt ttcatttgc 120
tggtatccat gaatctctca tcatcatact gagacttgat tcttcttta tcaggacaa 180
gagctggagg aggcagtgag caatgacat gcagctgctg aacatcagga gacaccagt 240
gactcgtgga tggtaggttc agttcactga atggatcaat ccatttcaca tcagatctt 300
cagattgaag tgaatgtgtt ttagtcacaa aagtgcctg aagctcagtt tacacaagca 360
gagaaaacaa acagagtaag ttatgatgat gctgatgaag gtctcctcat gtctcatgtc 420
tctcacacag atgccaaaca acagacagaa gcgtggttt aagtgttaagt tctgctgcgg 480
ctgctgcaga gctggtgtct gtggactgtg ctgcaaattc tgaggacctg ccagca 536

<210> 151
<211> 542
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 151
aagatgaaga catcagtggt tgcagtcaca gtggccgctcg tctcgtctt tatttgatc 60
cagcagagct ctgccacctt tcttgaggta agcacctgac ttcagatagc ttcatttgc 120
tggtatccat gaatctctca tcaacatact gagactttat tcttcttta tcaggacaa 180
gagctggagg aggcagtgag caatgacat gcagctgctg cgcacacagga gacatcagt 240
gactcgtgga tggtaggttc agttcactca atggatcaaa ccaattcaca tcagatctt 300
cagattgaag cgaatgtgtt ttagtcaaaa aagtgcctg atgctcagtt tacacaagca 360
gagaaaacaa gcagagtaag ttatgatgat gctgatgaac gtctcctcat gtctcatgtc 420
tctcacacag atgccataca acagaccgaa gcgtagcttt aagtgttaagt tctgctgcgg 480
ctgctgcaga gctggtgtct gtggactgtg ctgcaaattc tgaggattcc tgctccaaca 540

542

ac

<210> 152
<211> 542
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 152
aagatgaaga cattcagtgt ggcagtcaca gtggccgctg tgctcgtctt tatttgtatc 60
cagcagagct ctgccacctt tcctgaggta agcacctgac ttcagatagc ttcatttgc 120
tggtatccat gaatctctca tcaacatact gagacttgat ttcttcttta tcagggtacaa 180
gagctggagg aggcagtgag caatgacaat gcagccgctg aacatcagga gacatcagt 240
gactcgtgga tggtaggttc agttcaacta atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgaatgtgtt ttagtcacag aagtgcctg atgctcagtt tacacaagca 360
gagaaaacaa gcagagtaag ttatgatgat gctgatgaac gtgtcctcat gtctcatgtc 420
tctcacacag atgccataca acagaccgaa gcgtagcttt aagtgttaagt tctgctgcgg 480
ctgctgtaga gctggtgtct gtggactgtg ctgcaaattc tgaggattcc tgctccaaca 540
ac

<210> 153
<211> 542
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 153
aagatgaaga cattcgtggt tgcagtcaca gtggccgctg tgctcgtctt tatttgtatc 60
cagcagagct ctgccacctt tcctgaggta agcacctgac ttcagatagc ttcatttgc 120
tggtatccat gaatctctca tcaacatact gagacttgat ttcttcttta tcagggtacaa 180
gagctggagg aggcagtgag caatgacaat gcagccgctg aacatcagga gacatcagt 240
gactcgtgga tggtaggttc agttcaacta atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgactgtgtt ttagtcacaa aagtgcctg atgctcagtt tacacaagca 360
gagaaaacaa gcagagtaag ttatgatgat gctgatgaac gtgtcctcat gtctcatgtc 420
tctcacacag atgccataca acagacagaa gcgtagcttt aagtgttaagt tctgctgcgg 480
ctgctgcaga gctggtgtct gtggactgtg ctgcaaattc tgaggattcc tgctccaaca 540
ac

<210> 154
<211> 533
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 154
aagatgaaga catcagtggg tgcagtcaca gtggccgctg tgctcgtctt tatttgtatc 60
cagcagagct ctgccacctt tcctgaggta agcacctgac ttcagatagc ttcatttgc 120
tggtatccat gaatctctca tcaacatact gagactttat ttcttcttta tcagggtacaa 180
gagctggagg aggcagtgag caatgacaat gcagctgctg cacatcagga gacatcagt 240

gactcgtgga tggtaggttc agttcactca atggatcaaaa ccaattcaca tcagatcttt 300
cagatgaagt gactgtgttt tagtcacaaa agtgccctga tgctcagttt acacaagcag 360
agaaaacaag cagagtaagt tatgatgatg ctgatgaacg tgctctcatg tctcatgtct 420
ctcacacaga tgccatacaa cagacataag cgtagcttta agtgtaagtt ctgctgcggc 480
tgctgcagag ctggtgtctg tggactgtgc tgcaaatctt gaggattctt gct 533

<210> 155

<211> 541

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 155

aagataagac attcagtgtt gcagtcacag tggccgctgt gctcgtcttt atttgatcc 60
egcagagctc tgccaccttt cctgaggtaa gcacctgact tcagatcgtt tcaattgctt 120
gttagccttg aatctctcat caacatactg agacttgatt tcttctttat caggtacaag 180
agctggagga ggcagtgagc aatgacaatg cagctgctga acatcaggag acatcagtgg 240
acttgtggat ggtaggttca gttcactgaa tggatcaaac caattcacat cagatctttc 300
agatggaagt gaatgtgttt tagtcacaaa agtgccctga agctcagttt acacgagcag 360
agaaaacca caccagtaagt tatgatgatg ctgatgaacg tctcctcatg tctcatgtct 420
ctcacacaga tgccatacaa cagacagaag cgtggcttta agtgtaagtt ctgctgcggc 480
tgctgcagcc ctggtgtctg tggactttgc tgcagattct gaggattctt gctccaacaa 540
c 541

<210> 156

<211> 536

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 156

aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcatctt tatttgatc 60
cagcagagct ctgccacctt tctgaggtta agcacctgac ttcagatagt ttcatttgc 120
tgtrtccat gaatctctca tcaacatact gagactttat tcttcttta tcaggtacaa 180
gagctggagg aggcagtgag caatgaciat gcagctgctg aacatcagga gacatcattg 240
gactcatgga tggtaggttc agttcactca atggatcaaaa ccaattcaca tcagatcttt 300
cagatggaag tgactgtgtt ttagtcacaa aagtgccttg atgctcagtt tacacaagca 360
gagaaaacaa gcagagtaag ttatgatgat gctgatgaac gtgtcccat gtctcatgtc 420
tctcacacag atgccataca acagacagaa gcgtggcttt aagtgttaagt tctgctgcgg 480
ctgctgcaga gctggtgtct gtggactgtg ctgcaaatc tgaggacctg ccagca 536

<210> 157

<211> 536

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 157

aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcgtctt tatttgatc 60

```
cagcagagct ctgccacott tccctgaggta agcacctgac ttcagatagt ttcatttgct 120
tggtatccat gaatctctca tcaacatact gagactttat tccttcttta tcagggtacaa 180
gagctggagg aggcagtgag caatgacaat gcagctgctg aacatcagga gacatcattg 240
gactcatgga tggtaggttc agttcactca atggatcaaa ccaattcaca tcagatcttt 300
cagatggaaag tgaatgtgtt ttagtcacaa aagtgccctg atgctcagtt tacacaagca 360
gagaaaacaa gcagagtaag ttatgatgat gctgatgaac gtgtcctcat gtctcatgtc 420
tctcacacag atgccataca acagacatna gcgtagcttt aagtgttaagt tctgctgcgg 480
ctgctgcaga gctggtgtct gtggactgtg ctgcaaatte tgaggacctg ccagca 536
```

<210> 158
<211> 535
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

```
<400> 158
agatgaagac attcagtggt gcagtcacag tggccgtcgt gctcgtcttt atttgratcc 60
agcagagctc tgccaccttt cctgaggtaa gcacctgact tcagatagtt tcatttgctt 120
gttatccatg aatctctcat caacatactg agacttgatt tcttctttat cagggtacaag 180
agctggggga ggcagtgagc aatgacaatg cagccgtga acatcaggag acatcagtg 240
actcgtgat ggtaggttca gttcactcaa tggatcaaac caattcacat cagatctttc 300
agatggaaag gaatgtgtt tagtcacaaa agtgcctga tgcctcagtt acacaagcag 360
agaaaacaag cagagtaagt tatgatgat ctgatgaac gtgtcctcat tctcatgtct 420
ctcacacaga tgccatacaa cagaccgag cgtagcttta agtgttaagt ctgctgcggc 480
tgctgcagag ctgggtgtctg tggactgtgc tgcaaatctc gaggacctgc cagca 535
```

<210> 159
<211> 277
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

```
<400> 159
aagatgaaga cattcagtg tgcagtcaca gtggccgtcg tgctcatctt tatttgtatc 60
cagcagagct ctgccacctc tctgaggtta caagggtcgg aggaggcagt gagcaatgac 120
aatgcagctg ctgaacatca ggagacatca gtggactcgt ggatgatgcc atacaacaga 180
cagaagcgtg gctttaagt taagttcgc tgccgtcgt gcaggcctgg tgtctgtgga 240
cttctgtgca gatctgagg attctgtc caacaac 277
```

<210> 160
<211> 542
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

```
<400> 160
aagatgaaga cattcagtg tgcagtcaca gtggccgtcg tgctcatctt tatttgtatc 60
cagcagagct ctgccacctc tctgaggta agcacctgac ttcagatcgt ttcatttgct 120
tgtagcctt gaatctctca tcaacatact gagacttgat tcttcttta tcagggtacaa 180
```

```

gagctggagg aggcagtgag caatgacaat gcagctgctg aacatcagga gacatcagtg 240
gacttggtgga tggtaggttc agttcactga atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgaatgtgtt ttagtcacaa aagtgccctg aagctcagtt tacacgagca 360
gagaaaacca acacagtaag ttatgatgat gctgatgaac gtctctcat gtctcatgtc 420
tctcacacag atgccatata acagacagaa gcgtggcttt aagtgttaagt tctgctgcgg 480
ctgctgcaga cctggtgtct gtggacttgg ctgcagattc tgaggattcc tgcaccaaca 540
ac

```

<210> 161
 <211> 539
 <212> DNA
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Nucleotide
 sequence for hepcidin-like gene

```

<400> 161
aagatgaaga cattcagtgt tgcagtcaca gtggccgtcg tgctcgtctt tatttgatc 60
cagcagagct ctgccacctt tctgaggtta agcacctgac ttcagatcgt ttcatttgc 120
tgtagcctt gaatctctca tcaacatact gagacttgat ttcttcttta tcaggtaaaa 180
gagctggagg aggcagtgag caatgacaat gcagctgctg aacatcagga gacatcagtg 240
gacttggtgga tggtaggttc agttcactga atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgaatgtgtt ttagtcacaa aagtgccctg aagctcagtt tacacgagca 360
gagaaaacca acacagtaag ttatgatgat gctgatgaac gtctctcat gtctcatgtc 420
tctcacacag atgccatata acagacagaa gcgtggcttt aagtgttaagt tctgctgcgg 480
ctgctgcagt cctggtgtct gtggacttgg ctgcagattc tgaggattcc tgcaccaac 539

```

<210> 162
 <211> 536
 <212> DNA
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Nucleotide
 sequence for hepcidin-like gene

```

<400> 162
aagatgaaga cattcagtgt tgcagtcaca gtggccgtcg tgctcgtctt tatttgatc 60
cagcagagct ctgccacctt tctgaggtta agcacctgac ttcagatcgt ttcatttgc 120
tgtagcctt gaatctctca tcaacatact gagacttgat ttcttcttta tcaggtaaaa 180
gagctggagg aggcagtgag caatgacaat gcagctgctg aacatcagga gacatcagtg 240
gacttggtgga tggtaggttc agttcactga atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgaatgtgtt ttagtcacaa aagtgccctg aagctcagtt tacacgagca 360
gagaaaacca acacagtaag ttatgatgat gctgatgaac gtctctcat gtctcatgtc 420
tctcacacag atgccatata acagacagaa gcgtggcttt aagtgttaagt tctgctgcgg 480
ctgctgcagt cctggtgtct gtggacttgg ctgcaaatc tgaggacctg ccagca 536

```

<210> 163
 <211> 536
 <212> DNA
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Nucleotide
 sequence for hepcidin-like gene

<400> 163

```
aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcgtctt tatttgtatc 60
cagcagagct ctgccacctt tcctgaggta agcacctgac ttcagatcgt ttcatttgct 120
tgtagcctt gaactctctca tcaacatact gagacttgat ttcttcttta tcagggtacaa 180
gagctggagg aggcagtgag caatgacaat gcagctgctg aacatcagga gacatcagt 240
gactcgtgga tggtaggttc agttcactga atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgaatgtgtt ttagtcacaa aagtggcctg aagctcagtt tacacgagca 360
gagaaaacaa acacagtaag ttatgatgct gctgatgaac gtctcctcat gtctcatgtc 420
tctcacacag atgccatata acagacagaa gcgtggcctt aagtgttaagt tctgctgcgg 480
ctgctgcaga cctgggtgct gtggactttg ctgcaaattc tgaggacctg ccagca 536
```

<210> 164

<211> 271

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 164

```
aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcgtctt tatttgtatc 60
cagcagagct ctgccacctt tcctgaggta caagagctgg aggaggcagt gagcaatgac 120
aatgcagctg ctgaacatca ggagacatca gtggactcgt ggatgatgcc atacaacaga 180
cagaagcgtg gctttaagtg taagttctgc tgcggtgct gcagacctgg tgtctgtgga 240
ctttgctgca aattctgagg acctgccagc a 271
```

<210> 165

<211> 277

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 165

```
aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcgtctt tatttgtatc 60
cagcagagct ctgccacctt tcctgaggta caagagctgg aggaggcagt gagcaatgac 120
aatgcagctg ctgaacatca ggagacatca gtggactcgt ggatgatgcc atacaacaga 180
cagaagcgtg gctttaagtg taagttctgc tgcggtgct gcaggcctgg tgtctgtgga 240
ctttgctgca gattctgagg attcctgctc caacaac 277
```

<210> 166

<211> 499

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 166

```
aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcgtctt catttgtatc 60
cagcagagct ctgccacctt tcctgaggta agcacctgac ttcagatcgt ttcatttgct 120
tgtagcctt gaactctctca tcaacatact gagacttgat ttcttcttta tcagggtacaa 180
gagctggagg aggcagtgag cagtgcacat gcagctgctg aacatcagga gacatcagt 240
gactcgtgga tggtaggttc agttcactga atgtgtttta gtcacaaaag tgccctgaag 300
ctcagtttac acaagcagag aaaacaaaca gagtaagtta tgatgatgct gatgaacgtc 360
```

tcctcatgtc tcatgtctct cacacagatg ccatacaaca gacagaagcg tagctttaag 420
tgcaagttct gctgcggtcg ctgcagacgt ggtgtctgtg gactgtgctg caaattctga 480
ggattctgc tccaacaac 499

<210> 167
<211> 549
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 167
aagatgaaga ctatcagtgt tgcagtcaca gtggccgctg tgctcctctt catttgtacc 60
cagcagagct ctgccacctt tcctgaggta agcacctgac ttcagatcgt ttcatttgc 120
tgtagcctt gaattctctca tcaacatact gagacttgat ttcttcttta tcaggtacaa 180
gagctggagg aggcagtgag cagtgcacat gcggctgctg aacatcagga gacatcagtg 240
gactcgtgga tggtaggttc agttcactga atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgaatgtgtt ttagtcacaa aagtgccttg aagctcagtt tacacaagca 360
gagaaaacaa acacagtaag ttatgatgat gctgatgaac gtctcctcat gtctcatgtc 420
tcatgtctct cacacagatg ccatacaaca gacagaagcg tggctttaag tgcaagttct 480
gctgcggtcg ccgctgtggt gctctctgtg gactgtgctg caaattctga ggattctgc 540
tccaacaac 549

<210> 168
<211> 543
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 168
aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcgtctt catttgtacc 60
cagcagagct ctgccacctt tcctgaggta agcacctgac ttcagatcgt ttcatttgc 120
tgtagcctt gaattctctca tcaacatact gagacttgat ttcttcttta tcaggtacaa 180
gagctggagg aggcagtgag cagtgcacat gcagctgctg aacatcagga gacatcagtg 240
gactcgtgga tggtaggttc agttcactga atggatcaaa ccaattcaca tcagatcttt 300
cagatggaag tgaatgtgtt ttagtcacaa aagtgccttg aagctcagtt tacacaagca 360
gagaaaacaa acacagtaag ttatgatgat gctgatgaac gtctcctcat gtctcatgtc 420
tcatgtctct cacacagatg ccatacaaca gacagaagcg tggctttaag tgcaagttct 480
gctgcggtcg ccgctgtggt gctctctgtg gactgtgctg caaattctga ggacctgcca 540
gca 543

<210> 169
<211> 542
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

<400> 169
aagatgaaga cattcagtgt tgcagtcaca gtggccgctg tgctcgtctt tatttgtacc 60
agcagagctc tgccaccttt cctgaggtaa gcacctgact tcagatcgtt tcatttgcct 120

```
gttagccttg aatctctcat caacatactg agacttgatt tcttctttat caggtacaag 180
agctggagga ggcagtgagc agtgacaatg cagctgctga acatcaggag acatcagtg 240
actcgtggat ggtaggttca gttccctgaa tggatcaaac caattcacat cagctctttc 300
agatggaagt gaatgtgttt tagtcacaaa agtgccctga agctcagttt acacaagcag 360
agaaaacaaa cacagtaagt tatgatgatg ctgatgaaca tctcctcatg tctcatgtct 420
catgtctctc acacagatgc catacaacag acagaagcgt ggctttaagt gcaagttctg 480
ctgggctgct cgctgtggtg ctctctgttg actgtgctgc aaattctgag gacctgccag 540
ca 542
```

<210> 170
<211> 655
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

```
<400> 170
acgagctgac aggagctgac aggagtcacc agcagagtca aagaactaaa caacttaact 60
cagtcacact ctcaaagatg aagacattca gtgttgacgt cacagtggcc gtcgtgctcg 120
tctttatttg tatccagcag agctctgcca cctttcctga ggtacaagag ctggaggagg 180
cagtgaacaa tgacaatgca gctgctgagc atcaggagac accagtggac tcagggatga 240
tgccaaacaa cagacagaag cgcagcgcgc attgttgccc atgttgcaat caaaatggct 300
gtggaacttg ctgcaaggct taaacagact cttgggcaga tcaatccagg ttcgtctttc 360
gttgctcttc cgtggagtcg aaccagagac cttctcagcc catagtccaa gtttctgcca 420
ctagaccacc gcctctccct catcaaatac tcaatgtttt tcattttgtc ttaaagtcca 480
ttgaactata aacatatttc tggtagagca tgtgatagtt taatgggtgtt actcattggt 540
tcattggtata gtcagatgtt cagagatgtg attatatcat ccacatattt tctctgttaa 600
gggtgactgt caataaatgt caatgctcct ttgaaaaaaa aaaaaaaaaa aaac 655
```

<210> 171
<211> 510
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

```
<400> 171
cgtgctcgtc tttatttgta tccagcagag ctctgccacc tttcctgagg tgagctcctg 60
acttcagatc gtttcattta gcttggtatc catgaatctc tcatcaacat actgagactt 120
gaatccrrct ttatcaggta caggagcagg aggaggcagt gagcaatgac aatgcagctg 180
ctgaacatca ggagacatca gtggactcat ggatggatg ttcagttcac tgaatggatc 240
aaaccaatcc acatcagatc tttcagatgg aagtgaattt gttttagtcc caaaagtgcc 300
ctgaagctca gtttacacaa gcagagaaaa acaaaacaca gtaagttagt atgatgctga 360
tgaacgtctc ctcatgtctc atgtctctca cacagatgcc atacaacaga cagaagcgca 420
gcgccgagtg tagcttctgc tgcaatgaat ctggctgttg aatttgctgc aaattctgag 480
gattcctgct ccaacaacaa gggcgaattc 510
```

<210> 172
<211> 530
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Nucleotide

sequence for hepcidin-like gene

```

<400> 172
aagatgaaga cattcagtgt tgcagtcaca gtggccgctcg tgcctgctctt tatttctatc 60
cagcagagct ctgccacctt tcctgagggtg agctccctgac ttcagatcgt ttcattttagc 120
ttgttatcca tgaatctctc atcaacatac tgagacttga atccttcttt atcagggtaca 180
ggagctggag gaggcagtga gcaatgacaa tgcagctgct gaacatcagg agacatcagt 240
ggactcatgg atgttatgtt cagttcacag aatggatcaa accaattcac atcagatctt 300
tcagatggaa gtgaatttgt tttagtccca aaagtgccct gaagctcagt ttacacaagc 360
agagaaaaac aaaacacagt aagttatgat gatgctgatg aacgtctcct catgtctcat 420
gtccttcaca cagatgccat acsacagaaa gaagcgcagc gccgagtgtg gettctgctg 480
caatgaatct ggctgtggaa tttgctgcaa attctgagga cctgccagca 530

```

<210> 173

<211> 348

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Nucleotide
sequence for hepcidin-like gene

```

<400> 173
gtggaggagc cagtgagcag tgagaatgga gcaaatgaac acacataaga tctttcggat 60
ggaagtgtat gtgttttagt cacatgagtg gctcgaagct cagtacacac gaggcagagag 120
aacgacacaca gtgtgtttta ttctgcttgt gtaaaactgag cttcagttta cacaagcaga 180
gaaaacaaac acagtaagtt atgatgatgc tgatgaacgt ctccctcatgt ctcatatctc 240
tcacacagat gccaaacaac agacagaaac gtggtctctaa ttgcaaacca tgctgcaatc 300
ataatggtctg tggaacgtgc tgcgaagctc gaggattcct gctccaca 348

```

<210> 174

<211> 88

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 174

```

Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val Leu Ala Cys
  1                      5                      10                      15

```

```

Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr
                20                      25                      30

```

```

Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln Gln Pro
  35                      40                      45

```

```

Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln
  50                      55                      60

```

```

Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His Asn Lys
  65                      70                      75                      80

```

```

Gly Cys Gly Phe Cys Cys Lys Phe
                85

```

<210> 175
<211> 88
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 175
Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val Leu Ala Cys
1 5 10 15
Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr
20 25 30
Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln Gln Pro
35 40 45
Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln
50 55 60
Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His Asn Lys
65 70 75 80
Gly Cys Gly Phe Cys Cys Lys Phe
85

<210> 176
<211> 86
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 176
Met Lys Ala Phe Ser Val Ala Val Val Leu Val Ile Ala Cys Met Phe
1 5 10 15
Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
20 25 30
Val Gly Ser Phe Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
35 40 45
Glu Ser Met His Leu Pro Glu Pro Phe Arg Phe Lys Arg Gln Ile His
50 55 60
Leu Ser Leu Cys Gly Leu Cys Cys Asn Cys Cys His Asn Ile Gly Cys
65 70 75 80
Gly Phe Cys Cys Lys Phe
85

<210> 177
<211> 58
<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 177

Arg Thr Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln
1 5 10 15
Gln Pro Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys
20 25 30
Arg Gln Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His
35 40 45
Asn Lys Gly Cys Gly Phe Cys Cys Lys Phe
50 55

<210> 178

<211> 86

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 178

Met Lys Thr Phe Ser Val Ala Val Val Pro Val Ile Ala Cys Met Phe
1 5 10 15
Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
20 25 30
Val Gly Ser Phe Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
35 40 45
Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln Ser His
50 55 60
Leu Ser Leu Cys Arg Trp Cys Phe Asn Cys Cys His Asn Lys Gly Cys
65 70 75 80
Gly Phe Cys Cys Lys Phe
85

<210> 179

<211> 86

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 179

Met Lys Gln Phe Ser Val Ala Val Val Leu Val Met Ala Cys Met Phe
1 5 10 15

Ile Val Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
 20 25 30
 Val Gly Ser Leu Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
 35 40 45
 Glu Ser Met His Leu Pro Glu Pro Phe Arg Phe Lys Arg Gln Ile His
 50 55 60
 Leu Ser Leu Cys Gly Leu Cys Cys Asn Cys Cys His Asn Ile Gly Cys
 65 70 75 80
 Gly Phe Cys Cys Lys Phe
 85

<210> 180
 <211> 90
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 180
 Met Lys Ala Phe Ser Ile Ala Val Ala Val Thr Leu Val Leu Ala Phe
 1 5 10 15
 Val Cys Ile Gln Cys Ser Ser Ala Val Pro Phe Gln Gly Val Gln Glu
 20 25 30
 Leu Glu Glu Ala Gly Gly Asn Asp Thr Pro Val Ala Glu His Gln Val
 35 40 45
 Met Ser Met Glu Ser Trp Met Glu Asn Pro Thr Arg Gln Lys Arg His
 50 55 60
 Ile Ser His Ile Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys Lys Ala
 65 70 75 80
 Asn Lys Gly Cys Gly Phe Cys Cys Lys Phe
 85 90

<210> 181
 <211> 89
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 181
 Met Lys Thr Phe Ser Val Ala Val Ala Val Thr Leu Val Leu Ala Phe
 1 5 10 15
 Val Cys Ile Gln Asp Ser Ser Ala Val Pro Phe Gln Gly Val Gln Glu
 20 25 30

Leu Glu Glu Ala Gly Gly Asn Asp Thr Pro Val Ala Ala His Gln Met
 35 40 45
 Met Ser Met Glu Ser Trp Met Glu Ser Pro Val Arg Gln Lys Arg His
 50 55 60
 Ile Ser His Ile Ser Met Cys Arg Trp Cys Cys Asp Cys Cys Lys Ala
 65 70 75 80
 Lys Gly Cys Gly Pro Cys Cys Lys Phe
 85

<210> 182
 <211> 84
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 182
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Gly Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ala Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 183
 <211> 84
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 183
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45

Pro Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 184
 <211> 84
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 184
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Pro Val Asp Ser Trp Met Met Pro Asn Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 185
 <211> 58
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 185
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Met Pro Tyr Asn
 20 25 30
 Arg Gln Lys Arg Gly Phe Lys Cys Lys Phe Cys Cys Gly Cys Cys Gly
 35 40 45
 Ala Gly Val Cys Gly Met Cys Cys Lys Phe
 50 55

<210> 186
<211> 83
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 186
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Pro Val Asp Ser Arg Ile Pro Tyr Asn Arg Gln Lys Arg Ser Phe Lys
50 55 60
Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu Cys
65 70 75 80
Cys Lys Phe

<210> 187
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 187
Met Lys Thr Cys Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Pro Val Asp Ser Trp Met Met Pro Asn Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 188

<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 188
Met Lys Thr Ile Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Pro Val Asp Ser Gly Met Ile Pro Tyr Asn Arg Gln Lys Arg Ser Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 189
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 189
Met Lys Thr Phe Ser Gly Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Pro Val Asp Ser Trp Met Met Pro Asn Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 190
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 190
Met Lys Thr Ser Val Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Ala His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Pro Lys Arg Ser Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 191
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 191
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Pro Lys Arg Ser Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 192
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide

sequence

<400> 192

Met Lys Thr Phe Val Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45

Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
50 55 60

Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80

Cys Cys Lys Phe

<210> 193

<211> 84

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 193

Met Lys Thr Ser Val Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Ala His Gln Glu Thr
35 40 45

Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
50 55 60

Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80

Cys Cys Lys Phe

<210> 194

<211> 84

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 194

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Leu Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Ser Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Arg Phe

<210> 195
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 195
Met Lys Thr Phe Ser Val Ala Val Ala Val Ala Val Val Leu Ile Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Leu Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 196
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 196
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Leu Asp Ser Trp Met Met Pro Tyr Asn Arg His Lys Arg Ser Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 197
 <211> 84
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 197
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Gly Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Pro Lys Arg Ser Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 198
 <211> 84
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 198
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Ile Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Ser Pro Glu Val Gln Gly Leu
 20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Arg Ser

<210> 199
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 199
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Leu Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Arg Phe

<210> 200
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 200
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45

Ser Val Asp Leu Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Ser Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Arg Phe

<210> 201
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 201
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Ser Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 202
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 202
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60

Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80

Cys Cys Lys Phe

<210> 203
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 203
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 204
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 204
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80

Cys Cys Arg Phe

<210> 205
 <211> 84
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 205
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Ser Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Arg Gly Val Cys Gly Leu
 65 70 75 80

Cys Cys Lys Phe

<210> 206
 <211> 84
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Hepcidin peptide
 sequence

<400> 206
 Met Lys Thr Ile Ser Val Ala Val Thr Val Ala Val Val Leu Leu Phe
 1 5 10 15
 Ile Cys Thr Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Ser Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Arg Cys Gly Ala Leu Cys Gly Leu
 65 70 75 80

Cys Cys Lys Phe

<210> 207
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 207
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Pro Val Ser Ser Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Arg Cys Gly Ala Leu Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 208
<211> 84
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 208
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Ser Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Arg Cys Gly Ala Leu Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 209
<211> 81

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 209

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45Pro Val Asp Ser Gly Met Met Pro Asn Asn Arg Gln Lys Arg Ser Ala
50 55 60Asp Cys Trp Pro Cys Cys Asn Gln Asn Gly Cys Gly Thr Cys Cys Lys
65 70 75 80

Val

<210> 210

<211> 81

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 210

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Ala
50 55 60Glu Cys Ser Phe Cys Cys Asn Glu Ser Gly Cys Gly Ile Cys Cys Lys
65 70 75 80

Phe

<210> 211

<211> 81

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Hepcidin peptide
sequence

<400> 211

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Ala
50 55 60
Glu Cys Ser Phe Cys Cys Asn Glu Ser Gly Cys Gly Ile Cys Cys Lys
65 70 75 80
Phe

<210> 212

<211> 88

<212> PRT

<213> Hippoglossus hippoglossus

<400> 212

Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val Leu Ala Cys
1 5 10 15
Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr
20 25 30
Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln Gln Pro
35 40 45
Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln
50 55 60
Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His Asn Lys
65 70 75 80
Gly Cys Gly Phe Cys Cys Lys Phe
85

<210> 213

<211> 88

<212> PRT

<213> Salmo salar

<400> 213

Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val Leu Ala Cys
1 5 10 15
Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr
20 25 30

Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln Gln Pro
 35 40 45
 Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln
 50 55 60
 Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His Asn Lys
 65 70 75 80
 Gly Cys Gly Phe Cys Cys Lys Phe
 85

<210> 214
 <211> 86
 <212> PRT
 <213> Salmo salar

<400> 214
 Met Lys Ala Phe Ser Val Ala Val Val Leu Val Ile Ala Cys Met Phe
 1 5 10 15
 Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
 20 25 30
 Val Gly Ser Phe Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
 35 40 45
 Glu Ser Met His Leu Pro Glu Pro Phe Arg Phe Lys Arg Gln Ile His
 50 55 60
 Leu Ser Leu Cys Gly Leu Cys Cys Asn Cys Cys His Asn Ile Gly Cys
 65 70 75 80
 Gly Phe Cys Cys Lys Phe
 85

<210> 215
 <211> 58
 <212> PRT
 <213> Salmo salar

<400> 215
 Arg Thr Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln
 1 5 10 15
 Gln Pro Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys
 20 25 30
 Arg Gln Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His
 35 40 45
 Asn Lys Gly Cys Gly Phe Cys Cys Lys Phe
 50 55

<210> 216
 <211> 86
 <212> PRT
 <213> Salmo salar

<400> 216
 Met Lys Thr Phe Ser Val Ala Val Val Pro Val Ile Ala Cys Met Phe
 1 5 10 15
 Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
 20 25 30
 Val Gly Ser Phe Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
 35 40 45
 Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln Ser His
 50 55 60
 Leu Ser Leu Cys Arg Trp Cys Phe Asn Cys Cys His Asn Lys Gly Cys
 65 70 75 80
 Gly Phe Cys Cys Lys Phe
 85

<210> 217
 <211> 86
 <212> PRT
 <213> Salmo salar

<400> 217
 Met Lys Gln Phe Ser Val Ala Val Val Leu Val Met Ala Cys Met Phe
 1 5 10 15
 Ile Val Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
 20 25 30
 Val Gly Ser Leu Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
 35 40 45
 Glu Ser Met His Leu Pro Glu Pro Phe Arg Phe Lys Arg Gln Ile His
 50 55 60
 Leu Ser Leu Cys Gly Leu Cys Cys Asn Cys Cys His Asn Ile Gly Cys
 65 70 75 80
 Gly Phe Cys Cys Lys Phe
 85

<210> 218
 <211> 90
 <212> PRT
 <213> Pleuronectes americanus

<400> 218
 Met Lys Ala Phe Ser Ile Ala Val Ala Val Thr Leu Val Leu Ala Phe
 1 5 10 15
 Val Cys Ile Gln Cys Ser Ser Ala Val Pro Phe Gln Gly Val Gln Glu
 20 25 30
 Leu Glu Glu Ala Gly Gly Asn Asp Thr Pro Val Ala Glu His Gln Val
 35 40 45

Met Ser Met Glu Ser Trp Met Glu Asn Pro Thr Arg Gln Lys Arg His
 50 55 60
 Ile Ser His Ile Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys Lys Ala
 65 70 75 80
 Asn Lys Gly Cys Gly Phe Cys Cys Lys Phe
 85 90

<210> 219
 <211> 89
 <212> PRT
 <213> Paralichthys olivaceus

<400> 219
 Met Lys Thr Phe Ser Val Ala Val Ala Val Thr Leu Val Leu Ala Phe
 1 5 10 15
 Val Cys Ile Gln Asp Ser Ser Ala Val Pro Phe Gln Gly Val Gln Glu
 20 25 30
 Leu Glu Glu Ala Gly Gly Asn Asp Thr Pro Val Ala Ala His Gln Met
 35 40 45
 Met Ser Met Glu Ser Trp Met Glu Ser Pro Val Arg Gln Lys Arg His
 50 55 60
 Ile Ser His Ile Ser Met Cys Arg Trp Cys Cys Asn Cys Cys Lys Ala
 65 70 75 80
 Lys Gly Cys Gly Pro Cys Cys Lys Phe
 85

<210> 220
 <211> 84
 <212> PRT
 <213> Pleuronectes americanus

<400> 220
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Pro Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 221

<211> 84
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 221
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Pro Val Asp Ser Trp Met Met Pro Asn Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 222
 <211> 58
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 222
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Met Pro Tyr Asn
 20 25 30
 Arg Gln Lys Arg Gly Phe Lys Cys Lys Phe Cys Cys Gly Cys Cys Gly
 35 40 45
 Ala Gly Val Cys Gly Met Cys Cys Lys Phe
 50 55

<210> 223
 <211> 83
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 223
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Pro Val Asp Ser Arg Ile Pro Tyr Asn Arg Gln Lys Arg Ser Phe Lys
 50 55 60

Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu Cys
 65 70 75 80

Cys Lys Phe

<210> 224
 <211> 84
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 224
 Met Lys Thr Cys Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Pro Val Asp Ser Trp Met Met Pro Asn Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80

Cys Cys Lys Phe

<210> 225
 <211> 84
 <212> PRT
 <213> *Hippoglossoides platessoides*

<400> 225
 Met Lys Thr Ser Val Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Ala His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Pro Lys Arg Ser Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80

Cys Cys Lys Phe

<210> 226
 <211> 84
 <212> PRT
 <213> *Hippoglossoides platessoides*

<400> 226

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45

Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Pro Lys Arg Ser Phe
 50 55 60

Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80

Cys Cys Lys Phe

<210> 227

<211> 84

<212> PRT

<213> Hippoglossoides platessoides

<400> 227

Met Lys Thr Phe Val Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45

Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
 50 55 60

Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80

Cys Cys Lys Phe

<210> 228

<211> 84

<212> PRT

<213> Hippoglossoides platessoides

<400> 228

Met Lys Thr Ser Val Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Ala His Gln Glu Thr
 35 40 45

Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 229
 <211> 84
 <212> PRT
 <213> Hippoglossoides platessoides

<400> 229
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Leu Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Ser Pro Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Arg Phe

<210> 230
 <211> 84
 <212> PRT
 <213> Hippoglossoides platessoides

<400> 230
 Met Lys Thr Phe Ser Val Ala Val Ala Val Ala Val Val Leu Ile Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Leu Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 231

<211> 84
<212> PRT
<213> Hippoglossoides platessoides

<400> 231
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Leu Asp Ser Trp Met Met Pro Tyr Asn Arg His Lys Arg Ser Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 232
<211> 84
<212> PRT
<213> Hippoglossoides platessoides

<400> 232
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Gly Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Pro Lys Arg Ser Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 233
<211> 84
<212> PRT
<213> Salmo salar

<400> 233
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Ile Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Ser Pro Glu Val Gln Gly Leu
20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Arg Ser

<210> 234
 <211> 84
 <212> PRT
 <213> Hippoglossus hippoglossus

<400> 234
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Leu Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Arg Phe

<210> 235
 <211> 84
 <212> PRT
 <213> Hippoglossus hippoglossus

<400> 235
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Leu Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Ser Pro Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Arg Phe

<210> 236
 <211> 84
 <212> PRT
 <213> Hippoglossus hippoglossus

<400> 236
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Ser Pro Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 237
 <211> 84
 <212> PRT
 <213> Hippoglossus hippoglossus

<400> 237
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 238
 <211> 84
 <212> PRT
 <213> Hippoglossus hippoglossus

<400> 238
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 239
<211> 84
<212> PRT
<213> Hippoglossus hippoglossus

<400> 239
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Arg Phe

<210> 240
<211> 81
<212> PRT
<213> Pleuronectes americanus

<400> 240
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Pro Val Asp Ser Gly Met Met Pro Asn Asn Arg Gln Lys Arg Ser Ala
50 55 60
Asp Cys Trp Pro Cys Cys Asn Gln Asn Gly Cys Gly Thr Cys Cys Lys
65 70 75 80

Val

<210> 241
<211> 81
<212> PRT
<213> *Pleuronectes ferruginea*

<400> 241
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Ala
50 55 60
Glu Cys Ser Phe Cys Cys Asn Glu Ser Gly Cys Gly Ile Cys Cys Lys
65 70 75 80
Phe

<210> 242
<211> 81
<212> PRT
<213> *Pleuronectes ferruginea*

<400> 242
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Ala
50 55 60
Glu Cys Ser Phe Cys Cys Asn Glu Ser Gly Cys Gly Ile Cys Cys Lys
65 70 75 80
Phe

<210> 243
<211> 27
<212> PRT
<213> *Glyptocephalus cynoglossus*
<400> 243

Met Pro Asn Asn Arg Gln Lys Arg Gly Ser Asn Cys Lys Pro Cys Cys
 1 5 10 15

Asn His Asn Gly Cys Gly Thr Cys Cys Glu Val
 20 25

<210> 244

<211> 67

<212> PRT

<213> Hippoglossoides platessoides

<400> 244

Met Lys Phe Thr Ala Thr Phe Leu Met Leu Phe Ile Phe Val Leu Met
 1 5 10 15

Val Glu Pro Gly Glu Cys Gly Trp Lys Ser Val Phe Arg Lys Ala Lys
 20 25 30

Lys Val Gly Lys Thr Val Gly Gly Leu Ala Leu Asp His Tyr Leu Gly
 35 40 45

Glu Gln Gln Glu Leu Asp Lys Arg Ala Val Asp Glu Asp Pro Ser Ile
 50 55 60

Val Phe Asp
 65

<210> 245

<211> 67

<212> PRT

<213> Hippoglossoides platessoides

<400> 245

Met Lys Phe Thr Ala Thr Phe Leu Met Leu Phe Ile Phe Val Leu Met
 1 5 10 15

Val Glu Pro Gly Glu Cys Gly Trp Lys Lys Trp Phe Asn Arg Ala Lys
 20 25 30

Lys Val Gly Lys Thr Val Gly Gly Leu Ala Val Asp His Tyr Leu Gly
 35 40 45

Lys Gln Pro Glu Leu Asp Lys Arg Ala Val Asp Glu Asp Pro Ser Ile
 50 55 60

Val Phe Asp
 65

<210> 246

<211> 66

<212> PRT

<213> Hippoglossoides platessoides

<400> 246

Met Lys Phe Thr Ala Asn Phe Leu Met Leu Phe Ile Phe Val Leu Met
 1 5 10 15

Phe Glu Pro Gly Glu Cys Gly Trp Arg Thr Leu Leu Lys Lys Ala Glu

20 25 30
Val Lys Thr Val Gly Lys Leu Ala Leu Lys His Tyr Leu Gly Lys Gln
35 40 45
Pro Glu Leu Asp Lys Arg Ala Ile Asp Asp Asp Pro Ser Ile Ile Val
50 55 60
Phe Asp
65

<210> 247
<211> 68
<212> PRT
<213> *Pleuronectes americanus*

<400> 247
Met Lys Phe Thr Ala Thr Phe Leu Met Ile Ala Ile Phe Val Leu Met
1 5 10 15
Val Glu Pro Gly Glu Cys Gly Trp Gly Ser Phe Phe Lys Lys Ala Ala
20 25 30
His Val Gly Lys His Val Gly Lys Ala Ala Leu Thr His Tyr Leu Gly
35 40 45
Asp Lys Gln Glu Leu Asn Lys Arg Ala Val Asp Glu Asp Pro Asn Val
50 55 60
Ile Val Phe Glu
65

<210> 248
<211> 56
<212> PRT
<213> *Pleuronectes ferruginea*

<400> 248
Met Lys Phe Thr Ala Thr Phe Leu Met Met Cys Ile Phe Val Leu Met
1 5 10 15
Val Glu Pro Gly Glu Cys Arg Trp Gly Lys Trp Phe Lys Lys Ala Thr
20 25 30
His Val Gly Lys His Val Gly Lys Ala Ala Leu Thr Ala Tyr Leu Gly
35 40 45
Asp Lys Gln Glu Leu Asp Lys Arg
50 55

<210> 249
<211> 68
<212> PRT
<213> *Pleuronectes americanus*

<400> 249
Met Lys Phe Thr Ala Thr Phe Leu Met Met Phe Ile Phe Val Leu Met
1 5 10 15

Val Glu Pro Gly Glu Cys Gly Trp Gly Ser Ile Phe Lys His Gly Arg
20 25 30
His Ala Ala Lys His Ile Gly His Ala Ala Val Asn His Tyr Leu Gly
35 40 45
Glu Gln Gln Asp Leu Asp Lys Arg Ala Val Asp Glu Asp Pro Asn Val
50 55 60
Ile Val Phe Glu
65

<210> 250
<211> 56
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 250
Met Lys Phe Thr Ala Thr Phe Leu Met Met Phe Met Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Ala Gly Trp Gly Ser Ile Phe Lys His Ile Phe
20 25 30
Lys Ala Gly Lys Phe Ile His Gly Ala Ile Gln Ala His Asn Asp Gly
35 40 45
Glu Glu Gln Asp Leu Asp Lys Arg
50 55

<210> 251
<211> 67
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 251
Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Gly Ser Gly Glu Cys Gly Trp Lys Lys Trp Phe Thr Lys Gly Ala
20 25 30
Lys His Leu Gly Gln Ala Ala Ile Asn Gly Leu Ala Ser Cys Glu Glu
35 40 45
Gln Gln Glu Leu Asp Lys Arg Ser Glu Asp Asp Glu Pro Ser Ala Ile
50 55 60
Val Phe Glu
65

<210> 252
<211> 67
<212> PRT
<213> Glyptocephalus cynoglossus
<400> 252

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Gly Ser Gly Glu Cys Gly Trp Lys Lys Trp Leu Arg Lys Gly Ala
20 25 30
Lys His Leu Gly Gln Ala Ala Ile Lys Gly Leu Ala Ser Cys Glu Glu
35 40 45
Gln Gln Glu Leu Asp Lys Arg Ser Met Asp Asp Glu Pro Ser Ala Ile
50 55 60
Val Phe Asp
65

<210> 253
<211> 67
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 253
Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Gly Ser Gly Glu Cys Gly Trp Lys Lys Trp Leu Arg Lys Gly Ala
20 25 30
Lys His Leu Gly Gln Ala Ala Ile Lys Gly Leu Ala Ser Cys Glu Glu
35 40 45
Gln Gln Glu Leu Asp Lys Arg Ser Met Asp Asp Glu Pro Ser Ala Ile
50 55 60
Val Phe Asp
65

<210> 254
<211> 67
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 254
Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Gly Ser Gly Glu Cys Gly Trp Lys Lys Trp Phe Thr Lys Gly Ala
20 25 30
Lys His Leu Gly Gln Ala Ala Ile Asn Gly Leu Ala Ser Cys Glu Glu
35 40 45
Gln Gln Glu Leu Asp Lys Arg Ser Glu Asp Asp Glu Pro Ser Ala Ile
50 55 60
Val Phe Glu
65

<210> 255

<211> 62
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 255
Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Gly Ser Gly Glu Cys Gly Trp Lys Lys Trp Phe Thr Lys Gly Glu
20 25 30
Arg Leu Ser Gln Arg His Phe Ala Asp Val Glu Gln Gln Glu Leu Asp
35 40 45
Lys Arg Ser Val Asp Asp Glu Pro Ser Ser Ile Ala Phe Asp
50 55 60

<210> 256
<211> 62
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 256
Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Gly Tyr Trp Arg Phe Arg Asn His Arg Gly Glu
20 25 30
Arg Leu Ser Gln Arg His Phe Ala Asp Val Glu Gln Gln Glu Leu Asp
35 40 45
Lys Arg Ser Val Asp Asp Glu Pro Ser Ser Ile Ala Phe Asp
50 55 60

<210> 257
<211> 65
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 257
Met Lys Phe Thr Ala Thr Phe Leu Val Leu Val Ile Val Met Phe Glu
1 5 10 15
Pro Gly Glu Cys Phe Gly Met Leu Phe His Arg Val His His Ala Gly
20 25 30
Arg Leu Ile His Arg Phe Ile Lys Arg His Gly Asp Val Glu Gln Gln
35 40 45
Glu Leu Asp Lys Arg Ser Val Asp Asp Glu Pro Ser Ser Ile Ala Phe
50 55 60
Ala
65

<210> 258
<211> 76

<212> PRT

<213> Glyptocephalus cynoglossus

<400> 258

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Asp Cys Ile Phe Gly Leu Ile Ala Thr Ala Val His
20 25 30
Asn Ala Gly Arg Leu Ile His Arg Leu Leu Gly Phe His His Gly Pro
35 40 45
Pro Gly Phe Trp His Gly Asp Val Glu Gln Gln Glu Leu Asp Lys Arg
50 55 60
Ser Val Asp Glu Glu Pro Ser Ala Ile Val Phe Glu
65 70 75

<210> 259

<211> 76

<212> PRT

<213> Glyptocephalus cynoglossus

<400> 259

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Asp Cys Ile Phe Gly Leu Ile Ala Thr Ala Val His
20 25 30
Asn Val Gly Arg Leu Val His Arg Leu Leu Gly Phe His His Gly Pro
35 40 45
Pro Gly Phe Trp His Gly Asp Val Glu Gln Gln Glu Leu Asp Lys Arg
50 55 60
Ser Val Asp Glu Glu Pro Ser Ala Ile Val Phe Glu
65 70 75

<210> 260

<211> 69

<212> PRT

<213> Pleuronectes americanus

<400> 260

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Ser Leu Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Cys Phe Leu Gly Ala Leu Ile Lys Gly Ala Ile
20 25 30
His Gly Gly Arg Phe Ile His Gly Met Ile Gln Asn His His Gly Tyr
35 40 45
Asp Glu Gln Gln Glu Leu Asp Lys Arg Ser Val Asp Asp Asn Pro Gly
50 55 60
Ala Ile Val Phe Asp

65

<210> 261
<211> 68
<212> PRT
<213> *Pleuronectes americanus*

<400> 261
Met Lys Leu Ala Ala Ala Phe Leu Val Leu Phe Leu Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Ser Phe Leu Gly Phe Leu Phe His Gly Ile Arg
20 25 30
His Gly Ile Lys Ala Ile His Gly Met Ile His Gly Asn Ser Leu Asp
35 40 45
Glu Met Gln Glu Leu Asp Lys Arg Ser Phe Asp Asp Asn Pro Asn Ala
50 55 60
Ile Val Phe Asp
65

<210> 262
<211> 68
<212> PRT
<213> *Pleuronectes ferruginea*

<400> 262
Met Lys Leu Ala Ala Ala Phe Leu Val Leu Phe Leu Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Gly Phe Leu Gly Phe Leu Phe His Gly Ile His
20 25 30
His Gly Ile Arg Ala Ile His His Leu Ile His Gly Gln Arg Tyr Asp
35 40 45
Glu Gln Gln Glu Leu Asp Lys Arg Ser Val Asp Asp Asn Pro Gly Ala
50 55 60
Ile Val Phe Asp
65

<210> 263
<211> 55
<212> PRT
<213> *Hippoglossus hippoglossus*

<400> 263
Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Cys Phe Leu Gly Leu Leu Phe His Gly Val His
20 25 30
His Val Gly Lys Leu Ile His Gly Leu Ile His Gly Gly Tyr Asp Glu
35 40 45

Gln Gln Glu Leu Asp Lys Arg
50 55

<210> 264

<211> 57

<212> PRT

<213> Hippoglossus hippoglossus

<400> 264

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15

Ala Glu Pro Gly Glu Cys Phe Leu Gly Leu Leu Phe His Gly Val His
20 25 30

His Val Gly Lys Trp Ile His Gly Leu Ile His Gly His His Gly Tyr
35 40 45

Asp Glu Gln Gln Glu Leu Asp Lys Arg
50 55

<210> 265

<211> 61

<212> PRT

<213> Hippoglossus hippoglossus

<400> 265

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15

Ala Glu Pro Gly Glu Gly Phe Leu Gly Ile Leu Phe His Gly Val His
20 25 30

His Gly Arg Lys Lys Ala Leu His Met Asn Ser Glu Arg Arg Ser Tyr
35 40 45

Asp Glu Arg Gln Gln Gln Gln Gln Glu Leu Asp Lys Arg
50 55 60

<210> 266

<211> 60

<212> PRT

<213> Hippoglossus hippoglossus

<400> 266

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15

Ala Glu Pro Gly Glu Gly Leu Gly Asn Trp Met Gly Pro His Ile Ser
20 25 30

Gly Glu Lys Lys Ala Leu His Met Asn Ser Glu Arg Arg Ser Tyr Asp
35 40 45

Glu Arg Gln Gln Gln Gln Gln Glu Leu Asp Lys Arg
50 55 60

<210> 267
<211> 43
<212> PRT
<213> Glyptocephalus cynoglossus

<400> 267
Met Lys Leu Thr Ala Thr Phe Leu Val Leu Phe Met Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Gly Phe Trp Gly Lys Leu Phe Lys Leu Gly Leu
20 25 30
His Gly Ile Gly Leu Leu His Leu His Leu Gly
35 40

<210> 268
<211> 67
<212> PRT
<213> Pleuronectes americanus

<400> 268
Met Lys Phe Ala Thr Ala Phe Leu Met Leu Ser Met Val Val Leu Met
1 5 10 15
Ala Glu Pro Gly Glu Cys Arg Ser Thr Glu Asp Ile Ile Lys Ser Ile
20 25 30
Ser Gly Gly Gly Phe Leu Asn Ala Met Asn Ala Gly Tyr Asn Glu Gln
35 40 45
Gln Glu Leu Asn Lys Arg Ser Asp Asp Asp Asp Ser Pro Ser Leu Ile
50 55 60
Val Phe Asp
65

<210> 269
<211> 68
<212> PRT
<213> Pleuronectes americanus

<400> 269
Met Lys Phe Thr Ala Thr Phe Leu Leu Leu Phe Ile Phe Val Leu Met
1 5 10 15
Val Asp Leu Gly Glu Gly Arg Arg Lys Arg Lys Trp Leu Arg Arg Ile
20 25 30
Gly Lys Gly Val Lys Ile Ile Gly Gly Ala Ala Leu Asp His Leu Gly
35 40 45
Gln Gly Gln Val Gln Gly Gln Asp Tyr Asp Tyr Gln Glu Gly Gln Glu
50 55 60
Leu Asn Lys Arg
65

<210> 270
<211> 98
<212> PRT
<213> *Pleuronectes americanus*

<400> 270
Met Lys Phe Thr Ala Thr Leu Leu Leu Leu Phe Ile Phe Val Leu Met
1 5 10 15
Val Asp Leu Gly Glu Gly Arg Arg Lys Lys Lys Gly Ser Lys Arg Lys
20 25 30
Gly Ser Lys Gly Lys Gly Ser Lys Gly Lys Gly Arg Trp Leu Asp Arg
35 40 45
Ile Gly Lys Ala Gly Gly Ile Ile Ile Gly Gly Ala Leu Asp His Leu
50 55 60
Gly Gln Gly Gln Val Gln Gly Pro Asp Tyr Asp Tyr Gln Glu Gly Glu
65 70 75 80
Glu Leu Asn Lys Arg Ser Asp Asp Asp Asp Ser Pro Ser Leu Ile Phe
85 90 95
Phe Asp

<210> 271
<211> 85
<212> PRT
<213> *Pleuronectes americanus*

<400> 271
Met Lys Phe Thr Ala Thr Phe Leu Leu Leu Phe Ile Phe Val Leu Met
1 5 10 15
Val Asp Leu Gly Glu Gly Arg Arg Lys Lys Lys Gly Ser Lys Arg Lys
20 25 30
Gly Ser Lys Gly Lys Gly Ser Lys Gly Lys Gly Arg Trp Leu Glu Arg
35 40 45
Ile Gly Lys Ala Gly Gly Ile Ile Ile Gly Gly Ala Leu Asp His Leu
50 55 60
Gly Gln Gly Gln Val Gln Gly Pro Asp Tyr Asp Tyr Gln Glu Gly Glu
65 70 75 80
Glu Leu Asn Lys Arg
85

<210> 272
<211> 728
<212> DNA
<213> *Pleuronectes americanus*

<220>
<221> CDS

<222> (153)..(252)

<220>

<221> CDS

<222> (483)..(513)

<220>

<221> CDS

<222> (615)..(687)

<400> 272

gaattcgccc ttgcccactt tgrattcg:aa aggtaatatc aatatttttc aaattcattt 60

agacgagacc aaccttttgg gaaatctggt cagcttatta ctgtataatg caaatgttaa 120

tgatctttat tttctgttt ttttttgta ga atg aag ttc act gcc acc ttc 173
Met Lys Phe Thr Ala Thr Phe
1 5ctc atg atg ttc atc ttc gtc ctc atg gtt gaa cct gga gag tgt ggt 221
Leu Met Met Phe Ile Phe Val Leu Met Val Glu Pro Gly Glu Cys Gly
10 15 20tgg gga agc att ttt aag cat ggt cgt cat g gtaaagtcac ggaattaatt 272
Trp Gly Ser Ile Phe Lys His Gly Arg His
25 30

agcttttaac ttgcaaata ttgtttttt ttttaacagc tggaaactca caaaaataaa 332

tagccgatat atttggccaa ttataatcac ttgtatcaa ataacaacct aaaaggcctt 392

tgattagcat gtttcttcaa taaaatgatt gaacactact taaaggatg tataaacat 452

catcatgtgt ttttgtttgt ttttacacag ct gcc aag cat att ggc cat gca 505
Ala Ala Lys His Ile Gly His Ala
35 40gcc gtt aa gtaaggactt ctaccatlat tactgtataa ttttgatagt attatcacca 563
Ala Val Asngtattgttat tgacaacttc tttttttct gctgatccga ctcatccga g t cat 618
His
45tac ctt ggc gag cag caa gat ctc gac aag cgc gca gtc gat gaa gac 666
Tyr Leu Gly Glu Gln Gln Asp Leu Asp Lys Arg Ala Val Asp Glu Asp
50 55 60cca aat gtt att gtt ttt gaa tgaagaaatc gccttgaagg agccttcaga 717
Pro Asn Val Ile Val Phe Glu
65

agggcgaatt c 728

<210> 273

<211> 68

<212> PRT

<213> *Pleuronectes americanus*

<400> 273

Met Lys Phe Thr Ala Thr Phe Leu Met Met Phe Ile Phe Val Leu Met
 1 5 10 15
 Val Glu Pro Gly Glu Cys Gly Trp Gly Ser Ile Phe Lys His Gly Arg
 20 25 30
 His Ala Ala Lys His Ile Gly His Ala Ala Val Asn His Tyr Leu Gly
 35 40 45
 Glu Gln Gln Asp Leu Asp Lys Arg Ala Val Asp Glu Asp Pro Asn Val
 50 55 60
 Ile Val Phe Glu
 65

<210> 274
 <211> 60
 <212> PRT
 <213> Pleuronectes americanus

<400> 274
 Met Lys Phe Thr Ala Thr Phe Leu Met Ile Ala Ile Phe Val Leu Met
 1 5 10 15
 Val Glu Pro Gly Glu Cys Gly Trp Gly Ser Phe Phe Lys Lys Ala Ala
 20 25 30
 His Val Gly Lys His Val Gly Lys Ala Ala Leu Thr His Tyr Leu Gly
 35 40 45
 Asp Lys Gln Glu Leu Asn Lys Arg Ala Val Asp Glu
 50 55 60

<210> 275
 <211> 60
 <212> PRT
 <213> Pleuronectes americanus

<400> 275
 Met Lys Phe Thr Ala Thr Phe Leu Met Met Phe Ile Phe Val Leu Met
 1 5 10 15
 Val Glu Pro Gly Glu Cys Gly Trp Gly Ser Ile Phe Lys His Gly Arg
 20 25 30
 His Ala Ala Lys His Ile Gly His Ala Ala Val Asn His Tyr Leu Gly
 35 40 45
 Glu Gln Gln Asp Leu Asp Lys Arg Ala Val Asp Glu
 50 55 60

<210> 276
 <211> 61
 <212> PRT
 <213> Pleuronectes americanus
 <400> 276

Met Lys Phe Thr Ala Thr Phe Leu Val Leu Ser Leu Val Val Leu Met
 1 5 10 15
 Ala Glu Pro Gly Glu Cys Phe Leu Gly Ala Leu Ile Lys Gly Ala Ile
 20 25 30
 His Gly Gly Arg Phe Ile His Gly Met Ile Gln Asn His His Gly Tyr
 35 40 45
 Asp Glu Gln Gln Glu Leu Asn Lys Arg Ala Val Asp Glu
 50 55 60

<210> 277
 <211> 72
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 277
 Met Lys Phe Thr Ala Thr Phe Leu Leu Leu Phe Ile Phe Val Leu Met
 1 5 10 15
 Val Asp Leu Gly Glu Gly Arg Arg Lys Arg Lys Trp Leu Arg Arg Ile
 20 25 30
 Gly Lys Gly Val Lys Ile Ile Gly Gly Ala Ala Leu Asp His Leu Gly
 35 40 45
 Gln Gly Gln Val Gln Gly Gln Asp Tyr Asp Tyr Gln Glu Gly Gln Glu
 50 55 60
 Leu Asn Lys Arg Ala Val Asp Glu
 65 70

<210> 278
 <211> 89
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 278
 Met Lys Phe Thr Ala Thr Phe Leu Leu Leu Phe Ile Phe Val Leu Met
 1 5 10 15
 Val Asp Leu Gly Glu Gly Arg Arg Lys Lys Lys Gly Ser Lys Arg Lys
 20 25 30
 Gly Ser Lys Gly Lys Gly Ser Lys Gly Lys Gly Arg Trp Leu Glu Arg
 35 40 45
 Ile Gly Lys Ala Gly Gly Ile Ile Ile Gly Gly Ala Leu Asp His Leu
 50 55 60
 Gly Gln Gly Gln Val Gln Gly Pro Asp Tyr Asp Tyr Gln Glu Gly Glu
 65 70 75 80
 Glu Leu Asn Lys Arg Ala Val Asp Glu
 85

<210> 279

<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 279
Met Trp Lys Asp Val Leu Lys Lys Ile Gly Thr Val Ala Leu His Ala
1 5 10 15
Gly Lys Ala Ala Leu Gly Ala Val
20

<210> 280
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 280
Ser Ile Gly Ser Ala Phe Lys Lys Ala Leu Pro Val Ala Lys Lys Ile
1 5 10 15
Gly Lys Ala Ala Leu Pro Ile Ala Lys
20 25

<210> 281
<211> 934
<212> DNA
<213> Unknown Organism

<220>
<221> CDS
<222> (186)..(266)

<220>
<221> CDS
<222> (676)..(771)

<220>
<223> Description of Unknown Organism: Type 1 salmonid
hepcidin sequence

<220>
<221> CDS
<222> (361)..(441)

<400> 281
ctgacaccaa aagaacaatc aatcaacttt ggactcgtct tagtgcatcg aaaattgtgc 60
gttggagagc gtcgcttttt gggaacattg aagagttctg atcttctca taaactgtca 120
cttcaatttc aactgatttc aacaggactt ttaaataaggc tataaacttc ctaaaaaaaaa 180

cgaga atg aag gcc ttt agt gtt gca gtg gta ctc gtc att gca tgt atg 230
 Met Lys Ala Phe Ser Val Ala Val Val Leu Val Ile Ala Cys Met
 1 5 10 15
 ttc atc ctt gaa agc acc gct gtt cct ttc tcc gag gtatgtcaaa 276
 Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu
 20 25
 ttctccaaca ccaacccact acaaacatgt gtgcacgat tttagagggtt ggtcatgact 336
 catttgtgcc taatgtcttt gcag gtg cga acg gag gag gtt gga agc ttt 387
 Val Arg Thr Glu Glu Val Gly Ser Phe
 30 35
 gac agt cca gtt ggg gaa cat caa cag ccg ggc ggc gag tcc atg cat 435
 Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly Glu Ser Met His
 40 45 50
 ctg ccg gtacgttcaa ttgaatgaat gaattacgct aattaccttt agcaaattaa 491
 Leu Pro
 catttttagtg gttgcgtttt accctcggaa tagaattaga tcagtagcgc tagctgttaa 551
 ccatttgatt gtgagccgtt agagggttc agggcgagca gtgtgcaacg tggttgtgaa 611
 gtggagatat acttacttgc ttgttccctc cttttttcat attattttct tggcggggat 671
 acag gag cct ttc agg ttc aag cgt cag atc cac ctc tcc ctg tgc ggt 720
 Glu Pro Phe Arg Phe Lys Arg Gln Ile His Leu Ser Leu Cys Gly
 55 60 65
 ttg tgc tgc aac tgc tgt cac aac att ggc tgt ggc ttt tgc tgc aaa 768
 Leu Cys Cys Asn Cys Cys His Asn Ile Gly Cys Gly Phe Cys Cys Lys
 70 75 80 85
 ttc taaggacctg cccgcaacat tttctagttt gtacatgttt gcaatgtttt 821
 Phe
 ctttctgaga tgttgttttt gtgactatga taatgattta taaaatcact tcttattgtg 881
 acactttaaa aaaaataaac acattctitg aataacaaaa aaaaaaaaaa aaa 934

<210> 282

<211> 86

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Type 1 salmonid
 hepcidin sequence

<400> 282

Met Lys Ala Phe Ser Val Ala Val Val Leu Val Ile Ala Cys Met Phe
 1 5 10 15
 Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
 20 25 30
 Val Gly Ser Phe Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
 35 40 45

Glu Ser Met His Leu Pro Glu Pro Phe Arg Phe Lys Arg Gln Ile His
 50 55 60

Leu Ser Leu Cys Gly Leu Cys Cys Asn Cys Cys His Asn Ile Gly Cys
 65 70 75 80

Gly Phe Cys Cys Lys Phe
 85

<210> 283
 <211> 557
 <212> DNA
 <213> Unknown Organism

<220>
 <221> CDS
 <222> (11)..(178)

<220>
 <221> CDS
 <222> (423)..(518)

<220>
 <223> Description of Unknown Organism: Typel Hepcidin
 sequence

<400> 283
 cgcccttaag atg aag aca ttc agt gtt gca gtt gca gtg gtg gtc gtc 49
 Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val
 1 5 10

ctc gca tgt atg ttc atc ctt gaa agc acc gct gtt cct ttc tcc gag 97
 Leu Ala Cys Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu
 15 20 25

gtg cga acg gag gag gtt gaa agc att gac agt cca gtt ggg gaa cat 145
 Val Arg Thr Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His
 30 35 40 45

caa cag ccg ggc ggc acg tcc atg aat ctg ccg gtacgttcaa ttagtgaaat 198
 Gln Gln Pro Gly Gly Thr Ser Met Asn Leu Pro
 50 55

gaattaagta attaccttta gcaaattaac atctaagtgg ttgcgtttca cccttggaat 258

tgaattagcc cactagcgct agttgttnac catttgattg tgagccggta gagagggctt 318

cagggcgagt agtgtgaata cttgtgaugt ggagacttg acaaaaatac ttaccatgtg 378

cttgttccca cctttttcat tttcttttct tggctgagat acag atg cat ttc agg 434
 Met His Phe Arg
 60

ttc aag cgt cag agc cac ctc tcc ctg tgc cgt tgg tgc tgc aac tgc 482
 Phe Lys Arg Gln Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys
 65 70 75

tgt cac aac aag ggc tgt ggc ttc tgc tgc aaa ttc tgaggacctg 528

Cys His Asn Lys Gly Cys Gly Phe Cys Cys Lys Phe
80 85

ccagcaaagg gcgaattcgt ttaaaacac

557

<210> 284
<211> 88
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Type1 Hepcidin
sequence

<400> 284
Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val Leu Ala Cys
1 5 10 15
Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr
20 25 30
Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln Gln Pro
35 40 45
Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln
50 55 60
Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His Asn Lys
65 70 75 80
Gly Cys Gly Phe Cys Cys Lys Phe
85

<210> 285
<211> 81
<212> PRT
<213> *Pleuronectes americanus*

<400> 285
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Pro Val Asp Ser Gly Met Met Pro Asn Asn Arg Gln Lys Arg Ser Ala
50 55 60
Asp Cys Trp Pro Cys Cys Asn Gln Asn Gly Cys Gly Thr Cys Cys Lys
65 70 75 80
Val

<210> 286
<211> 81
<212> PRT
<213> Paralichthys olivaceus

<400> 286
Met Lys Thr Phe Ser Ala Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Thr Ser Pro Glu Val Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Ser Asp Asn Ala Ala Ala Glu His Gln Glu Gln
35 40 45
Ser Ala Asp Ser Trp Met Met Pro Gln Asn Arg Gln Lys Arg Asp Val
50 55 60
Lys Cys Gly Phe Cys Cys Lys Asp Gly Gly Cys Gly Val Cys Cys Asn
65 70 75 80
Phe

<210> 287
<211> 84
<212> PRT
<213> Pleuronectes americanus

<400> 287
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
20 25 30
Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45
Pro Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Ser Phe
50 55 60
Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
65 70 75 80
Cys Cys Lys Phe

<210> 288
<211> 84
<212> PRT
<213> Pleuronectes americanus

<400> 288
Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15
Ile Cys Ile Gln Gln Ser Ser Ala Ser Phe Pro Glu Ala Gln Glu Leu
20 25 30

Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Pro Val Asp Ser Trp Met Met Pro Asn Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Ala Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 289
 <211> 58
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 289
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Met Pro Tyr Asn
 20 25 30
 Arg Gln Lys Arg Gly Phe Lys Cys Lys Phe Cys Cys Gly Cys Cys Gly
 35 40 45
 Ala Gly Val Cys Gly Met Cys Cys Lys Phe
 50 55

<210> 290
 <211> 84
 <212> PRT
 <213> *Pleuronectes americanus*

<400> 290
 Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
 1 5 10 15
 Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
 20 25 30
 Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
 35 40 45
 Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
 50 55 60
 Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
 65 70 75 80
 Cys Cys Lys Phe

<210> 291
 <211> 84
 <212> PRT

<213> *Pleuronectes americanus*

<400> 291

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Ile Phe
1 5 10 15Ile Cys Ile Gln Gln Ser Ser Ala Thr Ser Pro Glu Val Gln Gly Leu
20 25 30Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80

Cys Cys Arg Ser

<210> 292

<211> 84

<212> PRT

<213> *Hippoglossus hippoglossus*

<400> 292

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45Ser Val Asp Leu Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80

Cys Cys Arg Phe

<210> 293

<211> 84

<212> PRT

<213> *Hippoglossus hippoglossus*

<400> 293

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Val Phe
1 5 10 15Ile Cys Ile Gln Gln Ser Ser Ala Thr Phe Pro Glu Val Gln Glu Leu
20 25 30Glu Glu Ala Val Ser Asn Asp Asn Ala Ala Ala Glu His Gln Glu Thr
35 40 45

Ser Val Asp Ser Trp Met Met Pro Tyr Asn Arg Gln Lys Arg Gly Phe
50 55 60

Lys Cys Lys Phe Cys Cys Gly Cys Cys Arg Pro Gly Val Cys Gly Leu
65 70 75 80

Cys Cys Arg Phe

<210> 294

<211> 86

<212> PRT

<213> Hippoglossus hippoglossus

<400> 294

Met Lys Thr Cys Gly Phe Ala Ala Ala Val Ala Val Leu Leu Thr Phe
1 5 10 15

Ile Cys Ile Gln Glu Gly Cys Ala Val Ser Val Ala Glu Glu Gln Val
20 25 30

Leu Lys Asp Pro Met Gly Asn Gly Asp Pro Gln Glu Val Pro Ala Glu
35 40 45

Ser Ser Gly Arg Gln Trp Met Met Pro Phe His Phe Arg Gln Arg Arg
50 55 60

Gly Ser Gly Pro Met Pro Cys Arg Gln Cys Cys His Cys Cys Pro Glu
65 70 75 80

Asn Gly Arg Val Tyr Val
85

<210> 295

<211> 85

<212> PRT

<213> Morone saxatilis

<400> 295

Met Lys Thr Phe Ser Val Ala Val Ala Val Ala Val Leu Ala Phe
1 5 10 15

Ile Cys Leu Gln Glu Ser Ser Ala Val Pro Val Thr Glu Val Gln Glu
20 25 30

Leu Glu Glu Pro Met Ser Asn Glu Tyr Gln Glu Met Pro Val Glu Ser
35 40 45

Trp Lys Met Pro Tyr Asn Asn Arg His Lys Arg His Ser Ser Pro Gly
50 55 60

Gly Cys Arg Phe Cys Cys Asn Cys Cys Pro Asn Met Ser Gly Cys Gly
65 70 75 80

Val Cys Cys Arg Phe
85

<210> 296
<211> 90
<212> PRT
<213> *Oryzias latipes*

<400> 296
Met Lys Ala Phe Ser Ile Ala Val Ala Val Thr Leu Val Leu Ala Phe
1 5 10 15
Ile Cys Ile Leu Gln Ser Ser Ala Ile Pro Val Asn Gly Val Lys Glu
20 25 30
Leu Glu Glu Ala Ala Ser Asn Asp Thr Pro Val Ala Ala Arg His Glu
35 40 45
Met Ser Met Gln Pro Trp Met Leu Pro Asn His Ile Arg Glu Lys Arg
50 55 60
Gln Ser His Ile Ser Met Cys Thr Met Cys Cys Asn Cys Cys Lys Asn
65 70 75 80
Tyr Lys Gly Cys Gly Phe Cys Cys Arg Phe
85 90

<210> 297
<211> 90
<212> PRT
<213> *Pleuronectes americanus*

<400> 297
Met Lys Ala Phe Ser Ile Ala Val Ala Val Thr Leu Val Leu Ala Phe
1 5 10 15
Val Cys Ile Gln Cys Ser Ser Ala Val Pro Phe Gln Gly Val Gln Glu
20 25 30
Leu Glu Glu Ala Gly Gly Asn Asp Thr Pro Val Ala Glu His Gln Val
35 40 45
Met Ser Met Glu Ser Trp Met Glu Asn Pro Thr Arg Gln Lys Arg His
50 55 60
Ile Ser His Ile Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys Lys Ala
65 70 75 80
Asn Lys Gly Cys Gly Phe Cys Cys Lys Phe
85 90

<210> 298
<211> 89
<212> PRT
<213> *Paralichthys olivaceus*

<220>
<221> MOD_RES
<222> (85)
<223> Variable amino acid

<400> 298

Met Lys Ala Phe Ser Ile Ala Val Ala Val Thr Leu Val Leu Ala Phe
 1 5 10 15
 Val Cys Ile Gln Asp Ser Ser Ala Ile Pro Phe Gln Gly Val Gln Glu
 20 25 30
 Leu Glu Glu Ala Gly Gly Asn Asp Thr Pro Val Ala Ala His Gln Met
 35 40 45
 Met Ser Met Glu Ser Trp Met Glu Ser Pro Val Arg Gln Lys Arg His
 50 55 60
 Ile Ser His Ile Ser Met Cys Arg Trp Cys Cys Asn Cys Cys Lys Ala
 65 70 75 80
 Lys Gly Cys Gly Xaa Cys Cys Lys Phe
 85

<210> 299
 <211> 88
 <212> PRT
 <213> Hippoglossus hippoglossus

<400> 299
 Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val Leu Ala Cys
 1 5 10 15
 Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr
 20 25 30
 Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln Gln Pro
 35 40 45
 Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln
 50 55 60
 Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His Asn Lys
 65 70 75 80
 Gly Cys Gly Phe Cys Cys Lys Phe
 85

<210> 300
 <211> 88
 <212> PRT
 <213> Salmo salar

<400> 300
 Met Lys Thr Phe Ser Val Ala Val Ala Val Val Val Val Leu Ala Cys
 1 5 10 15
 Met Phe Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr
 20 25 30
 Glu Glu Val Glu Ser Ile Asp Ser Pro Val Gly Glu His Gln Gln Pro
 35 40 45
 Gly Gly Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln
 50 55 60

Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn Cys Cys His Asn Lys
65 70 75 80

Gly Cys Gly Phe Cys Cys Lys Phe
85

<210> 301
<211> 86
<212> PRT
<213> Salmo salar

<400> 301
Met Lys Thr Phe Ser Val Ala Val Val Pro Val Ile Ala Cys Met Phe
1 5 10 15

Ile Leu Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
20 25 30

Val Gly Ser Phe Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
35 40 45

Thr Ser Met Asn Leu Pro Met His Phe Arg Phe Lys Arg Gln Ser His
50 55 60

Leu Ser Leu Cys Arg Trp Cys Phe Asn Cys Cys His Asn Lys Gly Cys
65 70 75 80

Gly Phe Cys Cys Lys Phe
85

<210> 302
<211> 61
<212> PRT
<213> Oncorhynchus mykiss

<220>
<221> MOD_RES
<222> (37)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (55)
<223> Variable amino acid

<400> 302
Leu Gln Val Leu Thr Glu Glu Val Gly Ser Ile Asp Ser Pro Val Gly
1 5 10 15

Glu His Gln Gln Pro Gly Gly Glu Ser Met Arg Leu Pro Glu His Phe
20 25 30

Arg Phe Lys Arg Xaa Ser His Leu Ser Leu Cys Arg Trp Cys Cys Asn
35 40 45

Cys Cys His Asn Lys Gly Xaa Gly Phe Cys Cys Lys Phe
50 55 60

<210> 303
<211> 86
<212> PRT
<213> Salmo salar

<400> 303
Met Lys Gln Phe Ser Val Ala Val Val Leu Val Met Ala Cys Met Phe
1 5 10 15
Ile Val Glu Ser Thr Ala Val Pro Phe Ser Glu Val Arg Thr Glu Glu
20 25 30
Val Gly Ser Leu Asp Ser Pro Val Gly Glu His Gln Gln Pro Gly Gly
35 40 45
Glu Ser Met His Leu Pro Glu Pro Phe Arg Phe Lys Arg Gln Ile His
50 55 60
Leu Ser Leu Cys Gly Leu Cys Cys Asn Cys Cys His Asn Ile Gly Cys
65 70 75 80
Gly Phe Cys Cys Lys Phe
85

<210> 304
<211> 84
<212> PRT
<213> Homo sapiens

<400> 304
Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu
1 5 10 15
Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln Thr Gly
20 25 30
Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala Arg Ala Ser
35 40 45
Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp Thr His Phe Pro
50 55 60
Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg Ser Lys Cys Gly Met
65 70 75 80
Cys Cys Lys Thr

<210> 305
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Formula peptide

<220>
<221> MOD_RES

<222> (9)..(11)
<223> Variable amino acid; this region may encompass 1-3 Xaa repeats

<220>
<221> MISC_FEATURE
<222> (12)..(13)
<223> this region may encompass 0-2 Leu residues

<220>
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<222> (14)..(14)
<223> may or may not be present

<220>
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<223> may or may not be present

<220>
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<223> Variable amino acid; may or may not be present

<220>
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<223> Variable amino acid; may or may not be present

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<223> may or may not be present

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<223> may or may not be present

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<222> (25)..(25)
<223> may or may not be present

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<222> (26)..(26)
<223> may or may not be present

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<222> (29)..(29)
<223> may or may not be present

<220>
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<222> (30)..(30)

<223> may or may not be present

<220>

<223> see specification as filed for detailed description of preferred embodiments

<400> 305

Met Lys Phe Thr Ala Thr Phe Leu Xaa Xaa Xaa Leu Leu Phe Ile Phe
1 5 10 15

Xaa Val Leu Met Xaa Val Glu Asp Pro Leu Gly Glu Cys Gly
20 25 30

<210> 306

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Formula peptide

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> may or may not be present:

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Variable amino acid; may or may not be present

<220>

<221> MOD_RES

<222> (3)..(4)

<223> Variable amino acid; this region may encompass 1-2 Xaa residues

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> may or may not be present

<220>

<221> MOD_RES

<222> (6)..(8)

<223> Variable amino acid; this region may encompass 1-3 Xaa residues

<220>

<221> MISC_FEATURE

<222> (9)..(9)

<223> may or may not be present

<220>

<221> MISC_FEATURE

<222> (10)..(10)

<223> may or may not be present

<220>

<221> MOD_RES

<222> (12)..(12)

<223> Asn or Asp

<220>
<221> MOD_RES
<222> (15)..(15)
<223> Ala or Ser

<220>
<221> MOD_RES
<222> (18)..(18)
<223> Asp or Glu

<220>
<223> see specification as filed for detailed description of
preferred embodiments

<400> 306
Tyr Xaa Xaa Xaa Glu Xaa Xaa Xaa Gln Glu Leu Xaa Lys Arg Xaa Val
1 5 10 15

Asp Xaa

<210> 307
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
signal peptide II

<220>
<221> MOD_RES
<222> (3)..(6)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (8)..(9)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (11)..(12)
<223> Variable amino acid

<400> 307
Met Lys Xaa Xaa Xaa Xaa Ala Xaa Xaa Val Xaa Xaa Val Leu
1 5 10

<210> 308
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
signal peptide III

<400> 308

Met Lys Thr Phe Ser Val Ala Val
1 5

<210> 309

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
signal peptide IV

<220>

<221> MOD_RES

<222> (15)..(15)

<223> Variable amino acid

<400> 309

Met Lys Thr Phe Ser Val Ala Val Thr Val Ala Val Val Leu Xaa Phe
1 5 10 15

Ile Cys Ile Gln Gln Ser Ser Ala
20

<210> 310

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
signal peptide V

<220>

<221> MOD_RES

<222> (11)..(11)

<223> Thr or Val

<220>

<221> MOD_RES

<222> (12)..(12)

<223> Leu or Val

<220>

<221> MISC_FEATURE

<222> (16)..(16)

<223> may or may not be present

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Val or Cys

<220>

<221> MOD_RES

<222> (18)..(18)

<223> Cys or Met

<220>

<221> MOD_RES
<222> (19)..(19)
<223> Ile or Phe

<220>
<221> MOD_RES
<222> (20)..(20)
<223> Gln or Ile

<220>
<221> MOD_RES
<222> (21)..(21)
<223> Variable amino acid

<220>
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<222> (22)..(22)
<223> Variable amino acid; may or may not be present

<220>
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<222> (24)..(24)
<223> Ser or Thr

<220>
<221> MOD_RES
<222> (29)..(30)
<223> Variable amino acid

<400> 310
Met Lys Thr Phe Ser Val Ala Val Ala Val Xaa Xaa Val Leu Ala Phe
1 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Ser Xaa Ala Val Pro Phe Xaa Xaa Val
20 25 30

<210> 311
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
prosequence I peptide

<220>
<221> MOD_RES
<222> (5)..(5)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (10)..(10)
<223> Variable amino acid

<220>
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<222> (12)..(12)
<223> Variable amino acid

<400> 311
Pro Glu Val Gln Xaa Leu Glu Glu Ala Xaa Ser Xaa Asp Asn Ala Ala
1 5 10 15

Ala Glu His Gln Glu
20

<210> 312
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
prosequence II peptide

<220>
<221> MOD_RES
<222> (3)..(4)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (6)..(6)
<223> Variable amino acid

<220>
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<222> (7)..(7)
<223> Variable amino acid; may or may not be present

<220>
<221> MOD_RES
<222> (8)..(8)
<223> Leu or Thr

<220>
<221> MOD_RES
<222> (12)..(12)
<223> Glu or Gly

<220>
<221> MOD_RES
<222> (13)..(13)
<223> Gly or Ser

<220>
<221> MOD_RES
<222> (14)..(14)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Thr or Ser

<220>
<221> MOD_RES
<222> (19)..(19)

<223> Ala or Gly

<220>

<221> MOD_RES

<222> (20)..(20)

<223> Variable amino acid

<400> 312

Pro Phe Xaa Xaa Val Xaa Xaa Xaa Glu Glu Val Xaa Xaa Xaa Asp Xaa
1 5 10 15

Pro Val Xaa Xaa His Gln
20

<210> 313

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 313

ggattcctgc tccaaca

17

<210> 314

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 314

taaggacctg cccgca

16

<210> 315

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<221> MOD_RES

<222> (3)..(3)

<223> Gly or Lys

<220>

<221> MOD_RES

<222> (4)..(5)

<223> Variable amino acid

<220>

<221> MOD_RES
<222> (7)..(7)
<223> Variable amino acid

<400> 315
Gly Trp Xaa Xaa Xaa Phe Xaa Lys
1 5

<210> 316
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

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<222> (2)..(8)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (10)..(10)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (12)..(13)
<223> Variable amino acid

<400> 316
Gly Xaa Xaa Xaa Xaa Xaa Xaa His Xaa Gly Xaa Xaa Ile His
1 5 10 15

<210> 317
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<221> MOD_RES
<222> (11)..(12)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (17)..(17)
<223> Variable amino acid

<400> 317
Phe Lys Cys Lys Phe Cys Cys Gly Cys Cys Xaa Xaa Gly Val Cys Gly
1 5 10 15

Xaa Cys Cys

<210> 318
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(3)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (9)..(9)
<223> Lys or His

<220>
<221> MOD_RES
<222> (10)..(10)
<223> Variable amino acid

<400> 318
Cys Xaa Xaa Cys Cys Asn Cys Cys Xaa Xaa Lys Gly Cys Gly Phe Cys
1 5 10 15

Cys Lys Phe

<210> 319
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (13)..(14)
<223> Variable amino acid

<400> 319
Phe Lys Cys Lys Phe Cys Cys Gly Cys Arg Cys Gly Xaa Xaa Cys Gly
1 5 10 15

Leu Cys Cys Lys Phe
20

<210> 320
<211> 19
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD_RES

<222> (1)..(3)

<223> Variable amino acid

<220>

<221> MOD_RES

<222> (5)..(6)

<223> Variable amino acid

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<222> (10)..(11)

<223> Variable amino acid

<220>

<221> MOD_RES

<222> (15)..(15)

<223> Variable amino acid

<220>

<221> MOD_RES

<222> (19)..(19)

<223> Variable amino acid

<400> 320

Xaa Xaa Xaa Cys Xaa Xaa Cys Cys Asn Xaa Xaa Gly Cys Gly Xaa Cys
1 5 10 15

Cys Lys Xaa

<210> 321

<211> 6

<212> PRT

<213> *Pleuronectes americanus*

<400> 321

Trp Met Glu Asn Pro Thr
1 5

<210> 322

<211> 6

<212> PRT

<213> *Pleuronectes americanus*

<400> 322

Gly Cys Gly Phe Cys Cys
1 5

<210> 323

<211> 6

<212> PRT
 <213> *Pleuronectes americanus*

<400> 323
 Gly Arg Arg Lys Arg Lys
 1 5

<210> 324
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 324
 aagatgaaga cattcagtgt tgca

24

<210> 325
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 325
 gttggtggag caggaatcc

19

<210> 326
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 326
 tgctggcagg tcctcagaat ttgc

24

<210> 327
 <211> 879
 <212> DNA
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Nucleotide
 sequence of pleurocidin-like gene

<400> 327
 atgaagttca ctgccacott cctcatgatt ttaattcttcg tcctcatggt cgaacctgga 60
 gagtgtggtt gtaagaaatg gtttaaaaag gctgctcac gtagagtcac ggaatteatt 120
 tgctttttgc tttacaaata ttttttata gcagctggaa aatcacaaaa ataaatagtc 180
 gatgtatttg gccaaattaga atcaatttca tttcaataat aatctaaata gcaacctaaa 240

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aggcrrttga ttagcatgtt ccttcaatga aatggatgtt gaggtttatt ttgattctca 300
catgcaccga cctgctgcgg caacaattga attccaattt gtcccaaagg aattcaaagt 360
aaacttttct aggcgattta atctttccat aactcggctt tgtttttraaa aatatataat 420
aactcaatcc ctatgataaa ataataacac atacattctg atttatacaa gacaagattg 480
aaaacttctt gaaagtatgt atcaaacatc atctgtttgt ataattgttt aacatttcat 540
aaaaagtcca actaattgtg ttatggaatt gtataaattg tcattttaata taattttttt 600
gagtttatca atatgtgttt ttgtttgttt tacacagtgt gcaagaacgt tggcaagggtg 660
gcccttaagt aaggacttct accattatta ctgtataatt ttgatagtat taccaccagt 720
actgttattg acaacttctc ttttctctgc gactctctoc atccgactca tctgcagtgc 780
ttaccttggg ggcagcagc agctcgacaa gcgtgcagtc gatgaagagc ccagtgttat 840
tgcttttgac tgaagaagtc gccttgaagg agccttcag 879

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<210> 328
 <211> 335
 <212> DNA
 <213> *Pleuronectes americanus*

<220>
 <221> CDS
 <222> (27)..(230)

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<400> 328
acaaagccca ctttgtattc gcaaga atg aag ttc act gcc acc ttc ctc atg 53
Met Lys Phe Thr Ala Thr Phe Leu Met
1 5

atg gcc atc ttc gtc ctc atg gtt gaa cct gga gag tgt ggc tgg gga 101
Met Ala Ile Phe Val Leu Met Val Glu Pro Gly Glu Cys Gly Trp Gly
10 15 20 25

agc ttt ttt aaa aag gct gct cac gtt ggc aag cat gtt ggc aag gcg 149
Ser Phe Phe Lys Lys Ala Ala His Val Gly Lys His Val Gly Lys Ala
30 35 40

gcc ctt act cat tac ctt ggc gat aag cag gag ctc aac aag cgt gca 197
Ala Leu Thr His Tyr Leu Gly Asp Lys Gln Glu Leu Asn Lys Arg Ala
45 50 55

gtc gat gaa gac cca aat gtt att gtt ttt gaa tgaagaaatc gccttgaagg 250
Val Asp Glu Asp Pro Asn Val Ile Val Phe Glu
60 65

agccttcaga tgatatataa tccttcttgc ttttaatgaa ataaatcaga cttttacctg 310
caacagcaaa aaaaaaaaaa aaaaaa 335

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<210> 329
 <211> 68
 <212> PRT
 <213> *Pleuronectes americanus*

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<400> 329
Met Lys Phe Thr Ala Thr Phe Leu Met Met Ala Ile Phe Val Leu Met
1 5 10 15

Val Glu Pro Gly Glu Cys Gly Trp Gly Ser Phe Phe Lys Lys Ala Ala
20 25 30

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His Val Gly Lys His Val Gly Lys Ala Ala Leu Thr His Tyr Leu Gly
35 40 45

Asp Lys Gln Glu Leu Asn Lys Arg Ala Val Asp Glu Asp Pro Asn Val
50 55 60

Ile Val Phe Glu
65

<210> 330
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 330
Phe Leu Gly Phe Leu Phe His Gly Ile His His Gly Ile Arg Ala Ile
1 5 10 15

His Leu Ile His Gly
20

<210> 331
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 331
Phe Phe Gly Ala Leu Ile Lys Gly Ala Ile His Gly Gly Lys Leu Leu
1 5 10 15

His Lys Leu Ile Lys Lys Lys His Glu His His Gly Tyr Gly Lys His
20 25 30

Trp Gly

<210> 332
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 332
Phe Leu Gly Phe Leu Phe His Gly Ile Arg His Gly Ile Lys Ala Ile
1 5 10 15

His Gly Met Ile His Gly
20

<210> 333
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 333
Gly Lys Gly Arg Trp Leu Glu Arg Ile Gly Lys Ala Gly Gly Ile Ile
1 5 10 15
Ile Gly Gly Ala Leu Asp His Leu Gly
20 25

<210> 334
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 334
Gly Leu Gly Asn Trp Met Gly Pro His Ile Ser Gly Glu Lys Lys Ala
1 5 10 15
Leu His Met Asn Ser Glu Arg Arg Ser
20 25

<210> 335
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 335
Gly Leu Gly Asn Trp Ile Val Arg Pro Ile Gly Gly Glu Lys Lys Ala
1 5 10 15
Leu Gln Met Asn Ser Glu Arg Arg Ser
20 25

<210> 336
<211> 35
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 336

Leu Phe Gly Lys Phe Leu Lys Lys Val Val His Ala Gly Thr Ser Ile
1 5 10 15

Gly Glu Thr Ala Leu His Val Ala Ala Glu His His Gly Leu His Ala
20 25 30

His His Gly
35

<210> 337

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 337

Gly Leu Gly Asn Trp Met Gly Pro His Ile Ser Gly Arg Lys Lys Ala
1 5 10 15

Leu His Met Asn Ser Glu Arg Arg Ser
20 25

<210> 338

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide:

<400> 338

Phe Leu Gly Leu Leu Phe His Gly Val His His Val Gly Lys Leu Ile
1 5 10 15

His Gly Leu Ile His Gly
20

<210> 339

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 339

Ala Arg Trp Gly Thr Phe Phe Lys His Ile Phe Lys Ala Gly Arg Phe
1 5 10 15

Ile His Gly Ala Ile Gln Ala His Asn Asp Gly
20 25

<210> 340
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 340
Ala Trp Ile Pro Ala Leu Asn Arg Ile Tyr His Gly Ala Leu Leu Arg
1 5 10 15
Ile Asn Arg Gln Met Val Tyr Tyr Arg Arg His Trp His Gly
20 25 30

<210> 341
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 341
Ala Trp Met Pro Ala Leu Asn Arg Ile Tyr His Gly Ala Leu Leu Arg
1 5 10 15
Ile Asn Arg Gln Met Val Tyr Tyr Arg Arg His Trp His Gly
20 25 30

<210> 342
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 342
Gly Trp Lys Lys Trp Phe Thr Lys Gly Ala Lys His Leu Gly Gln Ala
1 5 10 15
Ala Ile Asn Gly Leu Ala Ser
20

<210> 343
<211> 23
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 343
Gly Trp Lys Lys Trp Leu Arg Lys Gly Ala Lys His Leu Gly Gln Ala
1 5 10 15

Ala Ile Lys Gly Leu Ala Ser
20

<210> 344

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 344
Phe Gly Asp Phe Tyr Met Lys Pro Gly Arg Lys Ile Ser His Gly Tyr
1 5 10 15

Ile Arg Ser Pro Tyr Gly
20

<210> 345

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 345
Gly Tyr Trp Arg Phe Arg Asn His Arg Gly Glu Arg Leu Ser Gln Arg
1 5 10 15

His Phe Ala

<210> 346

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 346
Phe Gly Met Leu Phe His Arg Val His His Ala Gly Arg Leu Ile His
1 5 10 15

Arg Phe Ile Lys Arg His Gly
20

<210> 347
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 347
Ile Phe Gly Leu Ile Ala Thr Ala Val His Asn Ala Gly Arg Leu Ile
1 5 10 15
His Arg Leu Leu Gly Phe His His Gly Pro Pro Gly Phe Trp His Gly
20 25 30

<210> 348
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 348
Ile Phe Gly Leu Ile Ala Thr Ala Val His Asn Val Gly Arg Leu Val
1 5 10 15
His Gly Leu Leu Gly Phe His His Gly Pro Pro Gly Phe Trp His Gly
20 25 30

<210> 349
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 349
Ile Phe Gly Leu Ile Ala Thr Ala Val His Asn Val Gly Arg Leu Val
1 5 10 15
His Gly Leu Leu Gly Phe His His Gly Pro Pro Arg Phe Trp His Gly
20 25 30

<210> 350
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 350
Phe Phe Gly Met Arg Phe His Gly Val His His Ala Gly Gly Gly Phe
1 5 10 15
Leu Asn Ala Gln Gly Leu Leu Pro Ser Leu Leu Leu Asn Pro Gly Tyr
20 25 30
Arg Gly

<210> 351
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 351
Phe Phe Gly Ala Leu Leu Lys Gly Ala Gln Ala Leu His Gly Ile Ile
1 5 10 15
His Asn Ala Arg His Gly
20

<210> 352
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 352
Gly Trp Lys Asp Trp Phe Arg Lys Ala Lys Lys Val Gly Lys Thr Val
1 5 10 15
Gly Gly Leu Ala Leu Asn His Tyr Leu Gly
20 25

<210> 353
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 353
Gly Ile Arg Lys Trp Phe Lys Lys Ala Ala His Val Gly Lys Glu Val
1 5 10 15
Gly Lys Val Ala Leu Asn Ala Cys Leu
20 25

<210> 354
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 354
Gly Leu Lys Lys Trp Phe Lys Lys Ala Val His Val Gly Lys Lys Val
1 5 10 15
Gly Lys Val Ala Leu Asn Ala Tyr Leu Gly
20 25

<210> 355
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 355
Gly Trp Arg Lys Trp Ile Lys Lys Ala Thr His Val Gly Lys His Ile
1 5 10 15
Gly Lys Ala Ala Leu Asp Ala Tyr Ile Gly
20 25

<210> 356
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 356
Gly Cys Lys Lys Trp Phe Lys Lys Ala Ala His Val Gly Lys Asn Val
1 5 10 15
Gly Lys Val Ala Leu Asn Ala Tyr Leu Gly
20 25

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pleurocidin-like peptide

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1 5 10 15

Gly Lys Val Ala Leu Asn Ala Tyr Leu Gly
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Val Gly Lys Ala Ala Leu Asp Ala Tyr Leu Gly
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pleurocidin-like peptide

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His Gly Leu Ile His His Gly
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<210> 360
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pleurocidin-like peptide

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Leu Gly Asn Trp Met Gly Pro His Ile Ser Gly Arg Lys Lys Ala Leu
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Gln Met Asn Ser Glu Arg Arg Ser
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<210> 361
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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

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Phe Leu Gly Leu Leu Phe His Gly Val His His Val Gly Asn Leu Ile
1 5 10 15His Gly Leu Ile His His Gly
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<210> 362

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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
pleurocidin-like peptide

<400> 362

Gly Ile Arg Lys Trp Phe Lys Lys Ala Ala His Val Gly Lys Lys Val
1 5 10 15Gly Lys Val Ala Leu Asn Ala Tyr Leu Gly
20 25